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SECURITY FOR LOW-INCOME FAMILIES

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DURING the past decade six million people left the country for the higher wages and the fuller, brighter social life they felt could be found in the city. Into the great industrial centers millions of people were packed—millions of people with only one means of support—work for wages. So long as the wages lasted, a fair portion of the workers were reasonably prosperous.

And then came the fall of 1929. With the slowing down and shutting down of industry we found that the carefree road of ever-increasing production, which up to that point had been out of sight beyond an infinite utopian skyline, had an ending. It wound right up to the relief station doors.

Now the tide has turned. The exodus is from the cities to the country and is stimulated by the loss of the two factors—economic security and a satisfactory social life, which once caused the current to run the other way. Even admitting that we are getting out of the woods, that the pace of production is increasing beyond a jog trot, there are still hundreds of thousands of urban workers to be re-employed. And there are still an estimated 3,000,000 persons who have been held back on the farms during the depression but who are ready to flow cityward as soon as the unemployment barrier is removed.

What is going to happen? Are we going to promote a system which will see them all gathered into towns and cities again, once more entirely dependent upon wages? Isn't there a way to provide a secure and adequate manner of living for workers in both good times and bad? The federal government thinks that there is. It is subsistence homesteading.

A subsistence homestead is a modern but inexpensive house, with the outbuildings necessary for gardening or small farming, situated on a plot of ground large enough to produce at least one-third, preferably more, of the food needed by the homestead family. Since production of garden and farm commodities is for home consumption and not for commercial sale, subsistence homesteading carries with it the requirement that a homesteader must have a small but reasonably assured cash income, or at least reasonably certain prospects of an income from some outside activity, once he is settled on his homestead.

The authority for a program of subsistence homesteading was given by Congress in Section 208 of the National Industrial Recovery Act. A $25,000,000 revolving fund was provided. President Roosevelt chose Secretary of the Interior Ickes as the man to administer this new program, and Secretary Ickes delegated the job to the Division of Subsistence Homesteads, which he created in his Department.

The Division's work comprises a straightforward but difficult task. It is a family

restoration program designed to help families to help themselves, to provide a secure and adequate manner of living for families with a small income.

The central motive of the subsistence homestead program is to demonstrate the economic and social value of a form of livelihood which combines part-time wage work and part-time farming or gardening. The worker who goes to live on a subsistence homestead no longer depends solely on the single factor of pay-roll wages. In good times he cuts his living costs by raising part of the family food supply; in bad times he will at least have a roof over his head and can raise sufficient food to feed his family without aid from the relief agency.

Let's compare the budgets of two workers, each with an annual income of $800. The non-homesteader must buy all of the food for himself and his family. He finds that although he spends $320 for food, his family does not have an adequate diet. And in order to spend this much, he has to cut the amounts for other essential items, such as medical care, clothing, education and recreation, furnishings, equipment, and house operation, dangerously low. In contrast to this, the worker on a subsistence homestead can raise, say, $250 worth of the family food supply. It costs him $75 and he spends an additional $125 for staples. He not only spends less for food than the non-homesteader but in addition has a total food supply of a value of $375, or $55 more than the non-homesteader. His saving on food gives the homesteader more to spend on the other essential items of his budget.

The Division is setting up communities consisting of from twenty-five to one or two hundred individual subsistence homesteads. These communities or projects, as they are called, are scattered throughout the country, not in accordance with state lines or any other geographical factor, but as they are most needed in the solution of the social and economic problems affecting some special area. Through the Federal Subsistence Homesteads Corporation, which is the operating agency of the Division, the federal government buys land for the projects, builds the houses, installs such utilities as water, electricity, and sewage systems, builds roads, sets up schools where they are needed—in short, creates a complete modern rural-urban community.

When the time comes for homesteaders to occupy their homes, the cost of the project is totaled up and divided fairly among the individual homesteads. The homesteader then signs a contract under which he agrees to purchase the homestead over a thirty-year period, with interest at 3 per cent on unpaid principal. The cost of an individual homestead averages about $3,000. This embraces the land, the house, outbuildings, and a share in the community facilities; seed and fertilizer are usually included, also essential farming and gardening tools, a small flock of chickens, perhaps a pig or two, possibly a horse or cow. Amortized over a period of thirty years with interest at 3 per cent, the monthly payment which the homesteader must make comes to $12.65 for a $3,000 homestead.

To date, sixty-four homestead projects have been approved, of which forty-six have been publicly announced. The sixty-four projects when completed will accommodate approximately 6,600 homestead families. Approximately 1,500 houses are now completed, under construction, or under contract, on thirty-three projects. Some 60,000 acres of land have been purchased. Out of the Division's $25,000,000 revolving fund approximately $19,000,000 has now been allocated and actual expenditures of more than $5,000,000 have been made.

The majority of the projects the Division is undertaking are of the industrial type. These range from communities established near large industrial cities to those set up close to small industrial towns. Homesteaders are drawn from the ranks of work-

ers, usually part-time or seasonally employed, in industry or the trades and in a more limited number from the "white-collar" class.

Two other types of project are being undertaken in a limited way. Projects have been established for the accommodation of so-called "stranded groups," that is, workers who have been left unemployed, probably for good, by the closing down or the removal of the industries upon which they once depended. Workers in the bituminous coal industry and in the lumber industry and its dependencies are typical of this class. Virtually all these homesteaders have been on the relief rolls, some for several years. The employment problem is met by the development of community industries, by a certain amount of agricultural production for sale, and by the encouragement of private industry to establish factories or assembly plants in conjunction with the projects.

The third type of homestead community is the rural type, of which only two projects have been established. In the case of these communities the homesteaders will depend for income upon the commercial sale of crops, the attempt being made to emphasize production which will not run counter to control measures set up by the A.A.A.

Naturally, the houses being constructed cannot be mansions and still come within the price which a homesteader can afford. But they are substantial, well-designed houses, with some features which far more expensive houses often lack. They are homes of convenience and attraction, with electricity and proper heating, suited to the needs of the various sections of the country where they are located. They constitute a long forward step in the history of housing —and the housing of persons in the low-income classes in our country is one of the dark portions of our civilization.

An estimated two-thirds of the industrial workers in the United States are poorly housed. Houses complying with decent living standards are too expensive for the great majority; dwellings which meet the requirements of cheapness are unsound from the point of view of financial investment. Practically no new dwellings, and certainly no desirable dwellings, have been constructed in recent years at costs within the reach of the great bulk of the population. Exclusive of the farm population, this shortage of decent housing affects perhaps fifty million individuals.

The values to emerge from the program go much beyond the field of construction. Heretofore, low-cost houses, if we may call them such, have been provided by speculative builders. Studies in a number of different cities show that the sales price to the prospective home owner is about equally divided between building costs for material and labor and other costs which include land, financing, profits, special fees, and other incidentals that have been appended to home buying. Land may be included in the last category, though its actual value is commonly very questionable. The extreme of this evil was found in New York, where less than fifty per cent of the total cost went into the complete building including the interior accessories. For these excessive profits the purchaser may pay an excessive interest rate, even eighteen to twenty per cent for money secured through the second mortgage.

In this country few families in the low-income groups own their own homes; the difficulties in the way have been too great. The cost of construction has been one limiting factor; but the cost of financing has been even more of a barrier. The subsistence homesteads program is, therefore, encouraging home ownership not only by introducing new economies in construction but by affording liberal financing as well.

In planning homestead houses the Architectural Section of the Division has made detailed studies and established certain

principles of design looking to the elimination of unnecessary cost and improved livability and attractiveness. At the same time, local and regional needs and traditions are respected. It is the purpose of designs prepared by the Division to provide privacy, comfort, convenience, and attractiveness in so far as cost permits. The square-foot area of homestead houses must conform to a minimum standard, in order to keep within budget requirements. The houses vary in size from three to six rooms, and in cost from, perhaps, $1,200 to $3,000, depending upon the size and income of the family. Dining rooms and other spaces which are used but a few hours weekly have been omitted and their functions provided for in other areas. This economy of space means double-purpose rooms wherever operations may be suitably grouped.

The providing of good homes for families with low incomes, as a governmental function, is a genuine social experiment, the human results of which cannot be measured for some years hence. But with the building program under way, there is emerging for builders and others having immediate interests, two practical outcomes: the government is setting a standard for the building of good, low-cost houses and exposing the burdensome and wasteful costs of financing as found in private enterprises.

The possibility of reduction in normal building costs arises in three ways: A lower unit price is established by competitive bidding for large contracts covering, for instance, groups of fifty to one hundred houses.

Another saving is possible through reduction in major costs when homesteaders are employed in construction operations. This has proved particularly useful in projects established for the "stranded groups." It is the so-called self-supporting method where the homesteaders do the major portion of the work, being paid partly in cash and partly in credit against the purchase price of their homestead. The large majority of subsistence homestead houses, however, are built on contract, in which no special provision is made for the employment of homesteaders.

Further saving is accomplished through the adoption of the machine method of construction. The house plans are designed to fit commercial stock sizes and stock materials. Standard size doors and windows only are being used. All downstairs ceilings are eight feet and second-floor ceilings seven and a half feet. Ventilation adapted to the northern and southern climates respectively is secured by the proper placing of windows and doors.

Not the least of the collateral benefits derived from the subsistence homestead program is the employment which it furnishes. During a recent two-weeks period, the Division's records show that work on subsistence homestead projects supplied 265,142 man hours of labor. Out of every dollar spent for homesteading, a large portion goes directly for labor and another large portion for labor on materials used.

The families who move into subsistence homesteads are not being aided to move into new quarters by a benevolent government merely to change their addresses. It is expected that this move will provide a stimulus and means for each family to raise its standard of living.

Subsistence homesteaders are selected from a list of applicants on the basis of character, need, adaptability, and ability to pay for their homesteads. The two primary requisites are that the homesteaders must be United States citizens, and they must have an annual income of less than $1,200 and not own such savings or property as to make it appear that they could obtain financing from private sources. On the other hand, they must have an income, or reasonable prospects of an income, large enough to permit them to make the payments on their homesteads. They must not be so

burdened with debt as to make it unwise for them to assume the additional obligation of homestead purchase.

Both the husband and wife must be of legal age in order to sign the purchase contract. No upper age limit is set, but applicants forty-five years old and over must have children old enough so that they may be expected to assume the homestead obligation, should one or both of the parents die or become disabled.

Other factors being equal, a preference is given to applicants who have had experience in farming and gardening. Social adaptability, as shown in neighborhood contacts and membership in church, fraternal, and social organizations, is also given due weight.

The important part played by the wife in homestead life is recognized. In the first years the homestead wife will have to learn to do a number of things she perhaps has never done before. She must plan the quantity and variety of canned goods necessary to take care of the family's food supply for the winter. She must learn pressure canning and cold packing; she may want to attempt weaving and mattress making.

The Division does not cease its interest with the settlement of homesteaders on a project. Through the Community Development Section it acts to assure the homesteaders a well-rounded community life. Working in all cases through or with local authorities and agencies, officials of the Division guide the homesteaders' agricultural activities, see that school facilities are adequate and up to standard, and assist in matters of public health, recreation, and community activities.

Not the least important of the Division's responsibilities is that of assisting in the provision of employment where it is needed by the homesteaders, particularly in the case of the projects for the stranded groups.

Community enterprises are encouraged; help is given in training for handicrafts; and every effort is made to interest private industries in establishing themselves on or near homestead projects. Under its law the Division cannot loan working capital to private industries, but it can and does loan funds to homesteaders' cooperative associations to enable them to erect industrial buildings on project land not required for homestead use. The homesteaders may then lease the buildings to private industries which will agree to employ homestead labor. With the income from the lease the loan from the Division is paid back.

In the urbanization of our national life, people lost something. They lost the old emphasis on the family as the fundamental social unit; they lost the old joys of neighborliness and community living. The individual in the city suffers from anonymity; the family suffers from the forces of disorganization. The federal government has launched its subsistence homesteading venture with the hope that thousands of American families may attain a secure and happy manner of living.

HOME ECONOMICS IN NEW COLLEGE[1]

CECILE T. LAFOLLETTE

NEW COLLEGE is an undergraduate college affiliated with Teachers College, Columbia University. It opened in the fall of 1932 with an enrollment of 125 students and now has an enrollment of over 300. It occupies the same classrooms as does Teachers College. Its primary purpose is to train teachers in all fields for all levels and to serve as a laboratory for Teachers College. In New College, Teachers College students may do practice teaching on the college level under the joint supervision of the New College instructor and the Teachers College instructor in whose department the student is majoring. Teachers College staff members may experiment in New College in training teachers.

As to the general nature of the curriculum, in an official publication[2] we read:

> New College is deeply concerned that all students should become thoroughly aware of what is happening in contemporary society, both for the sake of their own insight and that they may be able better to interpret this changing social scene to others. New College students are urged to go beyond academic discussions to participation in social and political movements, each in accordance with his own convictions. They are preparing to be active participants in the community in which they will work and able to assume educational leadership. They are to be cognizant of the difficulties in achieving a better social order and conversant with the judgment of experts concerning social problems. They are to be tactful in dealing with controversial issues but not compromising. Above all, they are to have a special concern for reconstructing educational institutions in light of the needs of a changing civilization.
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> These responsibilities suggest that the curriculum for the education of teachers includes the whole body of experiences in which the teacher engages as an individual, as a member of society, and as a teacher of children.
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> While each student pursues an essentially individual curriculum, the first two years are directed toward the development of sound scholarship and professional and cultural background which gives a cross-section of the major areas of human activity. These years are used to determine the special field of educational work for which the student is best fitted.
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> The later years emphasize the further development of rich professional materials in the selected teaching field, and the further acquaintance with the varied aspects of education through continued observation, participation, and practice teaching.
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> The traditional point-and-credit system—the counting of educational progress in terms of semester hours—is rejected. In place of a quantitative requirement of semester hours, there is substituted a qualitative standard of attainment in terms of subjects and fields considered essential to professional education. On this basis, the degree is not awarded until the student has demonstrated his ability to do satisfactory teaching. . . . .
>
> In New College there are no extra-curricular activities. Everything that takes place is considered a part of the curriculum.

Students in New College are made to feel that New College is their college; that through their efforts it will succeed or fail. They feel perfectly free to suggest new ideas or to criticize constructively anything now being done. Students and faculty work together on every new undertaking. Students helped to make out the standards on which the granting of their degrees depends. They may even attend faculty meetings and may voice their opinions!

[1] Part of a paper read before the home economics sections of the Indiana State Teachers Association and the Northeastern Ohio State Teachers Association in October 1934.

[2] New College for the Education of Teachers. *Teachers College Bulletin*, 25th Series, No. 3 (1934, January) pages 5–16.

Each student must spend some time in industry. This may be on a farm, in a factory, or some other industrial or commercial endeavor. Summers for New College students are not vacation periods. Students find their own jobs. They are not always paid for working. Somehow the idea that work is important for its own sake has been developed, and they are glad to get a job for the experience.

An outgrowth of New College in New York is New College in North Carolina, which was established in the spring of 1933 and thenceforth known as New College Community. It is one hundred per cent a student venture. The students know exactly how much money there is in the budget and how it is to be spent.

The mountains of North Carolina were selected because of the remoteness from the hurry and strain of city life; because of the climate and the rich biological, botanical, geological, geographical, and sociological resources of this area. One purpose of the Community is to provide a location and community entirely different from anything known by the students of the metropolitan area. It is an experiment in community living which has been a proving ground for both students and faculty. The life there is difficult; a living is to be wrested pretty largely from the soil, and the one who survives it can be depended upon in any teaching position. It is a place where natural science, physical education, and home economics can be taught in a natural setting.

The Community is under the direction of a woman trained in home economics, supervision, and administration. It is now a year-round project instead of a summer one as first planned. The first boys and girls became what was known as the resident group, staying two summers and the winter between. With the exception of one or two, they could not have gone to school otherwise. Through such activities as management of the budget, raising and preserving food, and boarding the summer groups, they were able to make enough to give each one a scholarship for this year.

The staff in New York takes turns in spending one month at a time at the Community. My turn came last November. Believing thoroughly that any unit of work should be prepared with a definite group and a certain situation in mind, I could not prepare units of work in advance. After a city apartment, a farmhouse high up in the mountains where I had to carry in my own wood and build my own fire at 6 a.m. with the thermometer registering around 11°F. was anything but my idea of comfort. I was rather uncomfortable mentally, too, for a day or so and decided that I would certainly have a miserable month if I didn't find a way out. The way out came through a changed attitude. It was not what I would get out of the month but what I could bring to these boys and girls that mattered. From then on I thoroughly enjoyed my stay at the Community and felt as if I were leaving my own family when it was over.

Home economics material was taught through everyday activities. No outside help is employed. We cleaned rooms, and boys and girls learned how to scrub floors by scrubbing them with me. Every once in a while one could hear, "Why, it smells clean now," as we neared the finish in cleaning some room. We took as our big project the redecoration of the kitchen and dining room, both in a deplorable condition. One hole in the plastering a yard square had to be repaired. The girl and boy who did that masterpiece point with pride to it yet. Holes in the floor around pipes were cemented. A girl did that. The walls and woodwork were painted. New curtains were made which cost less than a dollar. A sink had to be lifted because most of the water drained on the floor. A new frame for the drainboard was needed. Finding that the drainboard would not come white with repeated scrubbings, we planed it.

Down underneath was a lovely piece of walnut. What joy in hidden treasures! Windowpanes had to be puttied, tables painted and varnished. An old chandelier found in the barn looked better than the one in the dining room so it was brought in. New wiring was put in to add lights in the kitchen, and so on through the many things needed to make a new commissary department. We sang and played as we worked. Each night found us tired, but each day found us at our task with enthusiasm. Never have I spent a more enjoyable month.

During this time electricity was the subject of a daily seminar in science. A new 24-foot water wheel was being installed by the boys, but the girls worked on anything that they could, and all studied about how it was done and about the principles of generating electricity with water power. Day by day and month by month progress on the wheel was made. The students must have felt the thrill of Edison when late in January the electricity was finally turned on. More physics was probably learned by the physics instructor and the students on that practical problem in a few months than most of us learn in a lifetime.

Every student at the Community takes home economics, but it is not called that in all cases. Management is provided for in a dozen different ways, chief of which is through the planning commission. This group of three or four boys and girls, elected from the larger group, meets with the director daily to plan the work schedule for the next day. Half of the day is devoted to community activities and half to study. The visiting instructor has a seminar immediately following breakfast at 7.30 a.m., and each instructor leaves assignments to be completed after he leaves, so there is always plenty of academic work to be done. Aside from this, the students are continually initiating study groups of one kind or another. A problem everyone is concerned with is that of adult education in the community. These boys and girls have much to bring to their mountain neighbors and much to gain from them. They quickly learn to give due respect to their neighbor, Luther, who advises with them on their farm activities.

House care is part of the day's routine in caring for their own rooms and the community rooms. Boys and girls work together in food preparation. New people are inducted into kitchen duty gradually—usually one new one with two experienced ones. This group is responsible for three meals daily for a period of two weeks, and then a new group comes on kitchen duty. With what pride a boy brings to the table his warm gingerbread—the first he ever made—and watches his hungry colleagues devour it! Boys as well as girls are put in charge of the kitchen. There are always a host and a hostess at the table, always a boy and a girl to act as son and daughter and wait on the table. Cleaning a chicken is an educational experience, and the biology students study the organs and anatomy as eagerly as any scientist would study a choice laboratory specimen. The community provides an ideal place to teach quantity cookery and food preservation. Fruit and vegetables are stored and canned for the winter. Jellies and preserves are made. Walnuts are brought in from the mountains. There is absolutely no sex differentiation made in any of these jobs. These are city people to whom every farm experience is an education in itself. Mere contact with materials provides a liberal education. The students educate each other out of their varied experiences. Twenty people (average number for the winter) living in close proximity, each interested in some different field, educate each other just by being together. Science permeates their daily life and is kept in the foreground by those primarily interested in science.

Home care of the sick is handled just as any family handles its minor ailments.

Clothing construction is taught through the construction of personal garments or household linens. The care of clothing is a constant problem; closet space is limited; clothes are often torn in the strenuous work; the students have few clothes and little money and therefore have to make the most of what they have. Most of the students do their own laundry work on free Saturday afternoons.

Boys are eager for home economics when it is taught informally, not labeled as such, and taught when they need it. The best piece of class work I ever did in sewing was done on the front porch, while I was enjoying the noon sunshine, with only Henry as my pupil. He had come the day before with an old pair of trousers which someone in the summer group had left. The trousers were covered with mud and badly worn. They were to become not work trousers but trousers for best wear. Since gasoline was expensive the only recourse was to wash them. This he did. The next day he came to show me how he was "sewing up" the holes. I got some darning cotton and as we sat in the sunshine talking over Henry's problems and many other things I never would have learned any other way, Henry learned to darn. A hole two inches in diameter didn't phase him. He made beautiful darns. When the holes had been darned and the seams let out, a pressing lesson was in order. Needless to say, when Henry came to dinner all "dressed up" in his new trousers he was overjoyed with his accomplishments.

The one phase of home economics that had not been provided for was child care and development and contact with the preadolescent. This was needed, too, for other than home economics majors. Contact with children is an absolute essential in training teachers—not just contact provided through practice teaching but contacts in many situations over long periods of time. Because of this need, a children's camp was added to the community project as another New College project. The camp, known as High Valley, admits boys and girls from 10 to 17 years of age. It is located close enough to the community to receive supplies and to have contact with the specialists in the sciences and the arts who teach there in the summer, but far enough away to be entirely "on its own." In a recent *High Valley Bulletin*, Mildred Bruckheimer, the director of the camp, says:

> The camp illustrates the same fundamental principles of active, purposeful learning, of study and development of individual activities, and of moral and intellectual integrity upon which New College itself is founded.
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> The camp gives an experience in cooperative, group living on a high level. It is part of the policy to have each child share in the work of the camp. This is not for the sake of economy but so that the camper may understand what is involved in the life of a normal community and may learn that play and recreation throughout life come after tasks well done.

The children themselves painted the house and their cabins after they arrived. The most significant statement made by the director of the children's camp was: "High Valley will be left in a perpetual unfinished condition so that campers may cooperate in planning and building for the future." To have to work is a shock to some when they first arrive, but the children would be the last to change that feature when they leave. The same would be true of the college students.

An effort has been made at the Community to draw out the mountaineers. The first summer the older boys and girls were invited for Saturday afternoon sports. Small children came along, and nothing had been planned for them. Out of this situation one of the nursery school majors started what was later known as the "children's hour" which took care of these children every Saturday afternoon. Not only did she faithfully carry through this project, but she visited the homes of children and

made many worth-while contacts—worth while to her and to the community of mountain folk. There was a common bond of interest—the children. From this small beginning grew the nursery school itself which was started this summer.

The nursery school and the children's camp are not primarily home economics projects, but home economics students have contributed much to their development and success. From reports of their summer's work one gleans a little of how much they learned. There were problems of diet, of cleanliness, and of disease that they were able to do something about. Through it all they learned to be tactful, for although the mountaineers are poor, they are also proud. They learned to be considerate and kindly. They learned to lose themselves in service for others.

Although all of these projects are closely supervised and directed by the college itself, they are initiated, planned, and executed by the students.

There are no nervous breakdowns at New College Community, no insomnia, no poor appetites. In summing up the value of the Community to the students, truly one can say, as did a wise person many years ago, "And the man grew faster than the crop."

Although the situation in North Carolina is an ideal one for home economics, the curriculum in New York offers some unusual opportunities. There are the foods and clothing courses similar to those in other colleges. A course on the family is integrated with the social science but taught by a home economics instructor. Home economics unites with the natural sciences in offering a year course in human growth and development. Almost all students are part of these courses. All first two-year people are part of an elementary education seminar, and all advanced students are in the advanced education seminar. There home economics instructors and students see home economics in relation to the rest of the curriculum and all students know something about the field through committee and seminar projects in building units of work. In addition to these features, every student either just before or during his one year of interneship (the last requirement for graduation) must complete a piece of elementary research worthy of publication. This is known as the interneship problem. The last year in college is directed toward rounding out the student's program and helping him with his interneship problem. He has a committee to advise with him but must do the research himself.

In addition to the regular work at New York and at least three months spent at the Community, each student must spend at least three months abroad. This experience fosters an appreciation of one's own country and an understanding of others. So far the students have left New York in May or June and returned in January. Expenses are worked out in such a way that the students who can afford to go to New College in New York can afford to go to New College in Europe. They are prepared for the trip through a study of the language and the civilization of the country they expect to visit. There are arrangements for groups in Germany, England, and France at the present time.

To use the group in Germany as an example, from June until August the students are enrolled in the University of Berlin, where they gain further mastery of the language and study the conditions of the country. From August until November or thereabouts the students travel, visiting schools, studying people. In November they return to the University of Berlin to organize materials and clarify ideas.

What can one learn during such a stay about home economics in Germany? First of all, that no subject can be understood except in its relation to the entire curriculum. In fact, the whole political situa-

tion must be studied to understand the philosophy of education underlying the recommendations and policies. History must be delved into so that pre-Hitler Germany may be compared with present-day Germany—in fact, so that present-day Germany may be understood at all. Of what significance to the home are the Hitler Youth Movement for boys and girls, the *Arbeitsfront* or work front, the ***Mutter und Kind*** organization, the recreation schools, and the rest? All of these are visited and studied. Students talk with members and get insight into what the layman thinks about Germany today. Movements in Germany are compared with movements in the United States.

Aside from all these there are the cultural value and development that come from traveling and contact with a foreign people. Some students live in the homes of German families, and the rest live together so that an experience in cooperative living is made possible. Last year two girls were able to spend two weeks at a woman's *Arbeitslager* or work camp. They were the first Americans to be admitted on the same basis as German women. What a fine experience for both the German girl and the American girl! After spending a few months in Germany one tempers one's remarks about Germany not paying her war debt and Hitler being a menace to the world. One sails for America with many fond remembrances of a delightful people full of enthusiasm and determination to rebuild their nation through uniting the youth and fostering love of country. Surely all this represents education of the highest order, regardless of what one's major is.

THE PLACE OF DISCUSSION IN THE LEARNING PROCESS[1]

EDUARD C. LINDEMAN

THE learning process may be described as experience which permits the individual to live more freely and more positively with respect to his environment. Consequently, every new fact concerning human nature or the world recognized and related to other facts constitutes a part of learning. How has it come about, then, that we are unable to solve our pertinent problems in spite of the vast increase in facts and in the use of fact-finding devices? We certainly know more about our environment than any previous generation of human beings. Facts continue to pour forth from laboratories, research centers, and investigational organizations in constantly growing increments. Books, monographs, theses, journals, and pamphlets come tumbling forth in a steady stream and all are motivated by the desire to disseminate facts. But we do not live more freely and more positively with respect to our environment. On the contrary, the experiences of most thoughtful persons of today tend to become unreal. Our public policies are cast in a framework of irrationality. We possess, for example, a vast equipment of machines, an army of trained technicians, a great reservoir of human labor, and an extraordinary store of natural resources. We should be the wealthiest people on earth and our people should enjoy the highest of all standards of living. But we are obliged to feed twenty-two millions of our citizens on charity's bread, and we use public funds to subsidize producers in order to coerce them into the act of refraining from production. And, further, what we do from day to day, especially those of us who have enjoyed the privilege of technical training, contains little rational meaning.

In spite of the paradox included in the above statement, we know that our problems will never be solved except through education. Force may be employed in order to break the vicious circle which enslaves us, but force does not truly solve problems. In the long run we shall learn to live more freely and more positively only through education. Obviously, then, our present task is to make a critical examination of our educational processes: if education is our only guarantee and if our problems are not solved by means of our vastly expanded educational structure, the difficulty must lie at the point of the quality of our contemporary learning. This is not the appropriate place to suggest the outlines of such a critical procedure. The modern educator who recognizes the situation can find ready guidance if he wishes to prepare himself for this critical enterprise. I shall confine my present essay to a single aspect of criticism which may be stated thus: The use of facts calls for a social method and consequently all education which does not train the learner to utilize facts within a social setting is incomplete and faulty.

This simple statement contains many important implications, but I shall select only those which seem to me to lend support to the proposition that discussion is an essential part of the learning process. From this restricted point of view, the most significant implications are:

[1] Prepared and printed at the request of the department of child development and parental education as preliminary reading for a discussion of the subject to be held at the department meeting in Chicago on Wednesday afternoon, June 26.

a. The mere dissemination of facts does not promote the solution of acute human problems.
b. Facts are not socially useful until they become relevant in a situation which involves human beings who differ from each other.
c. The important differences among human beings are not related to their knowledge of facts but rather to their desires, purposes, and feelings.
d. True learning, that is learning which is associated with the problems of life, is a twofold process which consists of knowledge on one hand and the use of knowledge on the other. He who possesses knowledge but lacks the facility to render his knowledge useful in actual experience is only partly educated.
e. The above two ingredients of learning should constitute a single process. If the learner does not acquire ways of using facts at the same time that he is accumulating the facts, he is likely to develop habits which will separate him from other persons; when the situation arises within which his knowledge might be relevant, he is then impeded by his inability to "get on" with the persons concerned.

The summarized meaning of this fivefold proposition is this: True education is a social process. I shall not take the pains to demonstrate the reasoning which lies beneath my proposition, since I assume that each thoughtful reader will wish to pursue this critical pathway on his own account. I shall allow my affirmation to stand, then, as a challenge to that older and more orthodox conception of education which assumes that learning is a simple device whereby knowledge is transferred from one mind to another.

Discussion represents one method among many designed to socialize learning. It is an attempt to bring the learning situation into alignment with the living situation of actual experience. Its initial aim is to discover why the same fact is interpreted with a differing shade of meaning by each member of a group. If discussion stops at this point, as, alas, it so frequently does, it degenerates into debate. Behavior is not altered by debating; in fact, the chief consequence of debating is to leave individuals more deeply entrenched in their differences and insulations. A tested fact does not call forth a variegated response from individual members of a group because the fact itself is doubted, but rather because each person wishes to know how this particular fact will affect his desires and purposes. He wants to know what the consequences will be to him if action is based upon this fact. This means that he cannot understand and therefore accept the fact until it has been related to his feelings. Discussion reveals these differences, and its second aim is to discover how much of the fact may be utilized by a group in forwarding the desires and purposes of all individuals involved. Discussion attempts to integrate the "external" fact with the "internal" feelings of those who compose the group. Insight appears when feelings and facts are blended; at that moment action arises as a spontaneous necessity.

In the above discussion lies the more subtle distinction between dictatorship and democracy. The method of external authority appears to achieve emotional unity. The totalitarian, fascist states of Europe seem to display much more unity than now characterizes the democratic states. This show of unity is attained, however, by means of symbolism and power. When dictatorships arise, discussion ends; differences are no longer tolerated. Anyone trained in scientific method will recognize at once that many of the dogmas of fascist governments (such as racial "myths") cannot stand the test of scientific fact. This does not, however, alter their temporary usefulness in establishing a sense of unity. So great is man's need for wholeness that he will set forth to construct even a fantastic whole when his security is at low ebb. We live in such a period of history, a time when men are willing to subscribe to the most demogogic of propositions rather than bear longer their present uncertainty. This seems to me to be the meaning of the great unreality mentioned earlier.

How does one rise above unreality? The surest method is, I believe, one which will

relate the person to something outside the self. Obviously, the "something" outside the self which is most important is the other person. All our perplexing problems are at bottom problems of human relationship. The discussion method in education is designed to relate persons to persons in common enterprises. It is appropriate, therefore, in any situation involving mutual interests. If we could adapt ourselves to the ways of conference and discussion in family life, in schools, and in work relationships, it would be a comparatively simple matter to bring into existence the necessary behavior patterns for a functional democracy. The difficulty at present derives from the fact that it is precisely in these areas that methods of dictatorship and arbitrary power prevail. I doubt, for example, whether it would be possible to demonstrate that our American graduates of colleges and universities possess a larger sense of social responsibility than do the unlettered. We cannot at present count on our educated persons to devote themselves zestfully to the building of a better world. Most of their learning has been a private affair; and what is worse, most of them have thought of education as a set of tools to be used in achieving their desires, even by exploiting others. But the true function of learning is to teach us what to desire. In discussion procedures our desires are tested. The special merit of a social method in learning is that it does not divorce values or ends from facts and methods. One does not first acquire desires and then accumulate instruments for their attainment; on the contrary, desires and facts become items in the same situation.

Those among our educated persons who will have the greatest difficulty in adapting themselves to a social method in education are technical experts and specialists. This statement represents a tragic fact because our lives are increasingly dependent upon the proper functioning of experts. I have already indicated that one of the problems involved in this situation derives from our naive conception of facts. Experts are particularly susceptible to this error; they strive to force the social situation to conform to their external facts, but they do not attempt to understand the nature of the social situation. There is, however, another difficulty which needs to be mentioned. Experts, those who possess technical information and skills, derive their major satisfaction as professionals from their feeling of superiority. Like most parents, they secure so much ego-satisfaction from dominance that they cling to the dominating technics even when it is clearly manifest that the situation will not yield to such methods. Experts, consequently, feel uncomfortable in the setting of a discussion. They feel that so much talk is a waste of time and energy when the right solution for the problem is already in their minds. They forget that there is no right solution which is not essentially social in nature. While discussion is in process experts usually experience annoyance; the tension would be relieved for them if someone would only turn in their direction and ask for an authoritative statement. The opportunity for which they long, arrives at this point; their egos expand at the moment when they are able to assert their superiority. But how often they are dismayed to discover that the solution proposed with such assurance is later discarded by the group!

The fundamental lesson which educators of this generation need to learn is that effective education is a social process. There are many ways in which the social background and the social implication may be introduced into the learning equation. Discussion as a method possesses the unique merit of doing more than this, in that it conditions the learner's behavior in the direction of social living. It is not enough that we should realize that all learning takes place within a social setting; the educator needs also to appreciate that learning may become an exciting social experience.

HOME ECONOMICS: A FUNDAMENTAL IN THE CURRICULUM[1]

THOMAS W. GOSLING

WHEN we study the development of home economics in our American schools, we find a gratifying evolution of purpose. The courses originally were intended for girls only; in fact, even now girls occupy a place of first importance. Gradually, however, the position of boys and of men in the economy of the home is receiving recognition. At first, cooking and sewing comprised the whole of home economics. Millinery, laundering, home decoration, home sanitation, home hygiene, home nursing followed. Then instead of cooking and sewing, courses in foods and clothing were introduced. This change of name is of great significance because it indicates a considerable expansion of ideas. In its more recent aspects home economics impinges upon the departments of physics, chemistry, music, the graphic arts, the manual and industrial arts, economics, and political science. Good leadership on the part of the professional advocates of home economics may make this subject most influential in the development of the new curriculum which is sorely needed and which is now in the making.

I am aware that a few years ago the home economics departments in some elementary and high schools suffered casualties. In a period of financial retrenchment the so-called special subjects were the first to be eliminated. They were labeled as the fads and frills of the curriculum. Sometimes this was the expression of genuine conviction and sometimes, we are forced to think, it was a subterfuge practiced by persons more interested in reducing expenditures than in providing adequate educational opportunities. The consequence of this demonstration of public opinion has been to reduce or to remove altogether in certain school systems those activities which had been developed for the purpose of supplying reality and concreteness to a curriculum which previously had given disproportionate emphasis to the verbal and the abstract.

When we look for an explanation of this unfortunate retrenchment, we quickly conclude that home economics and the other special subjects are unusually vulnerable because they are relatively new and untried and because they have not had time to become established among the accepted conventions of educational practice. It was often claimed that they were not so well taught as were the older subjects; that their content was intrinsically less valuable; that they were elected for the most part by the intellectually inferior pupils; and that they were "snap" subjects which called for a rather small amount of intellectual effort. The arraignment was complete when it was asserted that on account of the double class period usually assigned and on account of the small size of the classes, the special subjects were by far the most expensive in the program of studies. Consequently, when the need for retrenchment came, these subjects were the first to yield to pressure. It would be profitless now to state the case for the defense on any of these charges. What we need is to learn such lessons as we can from past experience and to face the future

[1] Paper presented before the meeting of the Department of Supervisors and Teachers of Home Economics, National Education Association, Atlantic City, New Jersey, February 23, 1935.

with full confidence in the value of an enriched curriculum.

We seem to be about to enter upon a period of rapid and fundamental change in our educational procedures. Dissatisfaction with past achievements is plainly apparent not only in the ranks of the so-called liberals and radicals but even among the most conservative members of the educational profession. This state of unrest is made the more acute by the attacks of those critics who assert that the schools make too heavy a drain upon public revenues. To ignore all charges and to continue in old ways with smug complacency are not marks of real leadership. As teachers and administrators we are under obligation to reexamine our faith and our practice from time to time in order to determine their validity under new conditions.

We are asked, for example, whether the huge costs of public education have produced commensurate results in character, in personal conduct, and in good citizenship. Most of us, I think, are willing to admit that we have fallen far short of our ideals. We might offer many excuses. We could say, for example, that the total social situation outside of the schools has tended to nullify our efforts. Children learn more thoroughly by example than by precept. They have learned from numerous social practices that the world of adults has standards quite different from the standards of the schools. The ways of life that we have tried to teach are not followed universally in the community. This is the great extravagance. The public spends huge sums raised by taxation in order to teach children lessons which that public by its own contrary example cannot expect these children to practice as adult citizens. Until society in all of its ramifications sets worthy examples for children to follow, there will always be much ineffectiveness and failure in the effort to give fundamental training in the schools.

Fortunately there are signs of an awakening to a sense of responsibility to the young. Coordinated efforts to promote child welfare are in the making. We may hope that ultimately society will recognize that its most important task is the proper education of children and youths. This task is more important than building cities, exploiting natural resources, accumulating wealth, seeking power and place, and more important than conquering the sea and the air.

While these outside movements and ameliorations are developing, it behooves the schools to set their house in order. Unfortunately there is a wide variance of opinion among educational authorities concerning the appropriate method to use. Some would have no patterns for youth to follow and would depend upon the orderly unfolding of life under a suitable environment. According to the theory of this group of thinkers, the task of the school is to supply the proper environment, including desirable materials for study. They of course would decide what is desirable and what is not, although they would stimulate children to use their own initiative in finding and selecting.

Another view of educational function, sometimes called the theory of indoctrination, assumes that adults have discovered certain patterns which it is desirable for children to understand and to follow. This latter view has prevailed quite generally in school practice. The criticism which is now leading to the making of the new curriculum is that there have been serious omissions in the selection of the patterns. Instead of choosing those which are well within the range of child experience and which have a direct bearing upon daily life, we have tended to emphasize the importance of mastering racial achievements which are abstract and lacking in challenging significance to the young. Arithmetic, reading, geography, history, and the other so-called academic subjects on both the lower and higher levels, constitute a price-

less racial heritage. But they are not our sole heritage. They represent mastery in the realm of the intellect. Other rich legacies have come down to us in the form of social and political institutions. To ignore or even to minimize these is to count as of little present value those centuries of painful struggle and striving through which by slow degrees we have come to be what we are.

It is the comparative neglect of some of these important social institutions that has thrown our educational system out of balance. Its consequences are now stimulating a demand for new materials and methods. Thus we shall find ourselves in the near future forced in sheer self-defense to ask what responsibilities rest upon the schools to preserve the patterns of individual liberty and of free institutions whereby men govern themselves through political machinery of their own making; and we shall have to ask in particular what responsibility rests upon the schools to preserve the pattern of the home wherein man and wife and children in love and loyalty constitute a social unit to which centuries of experience have given incontestable validity. If we are unwilling to admit into the curriculum those studies which deal directly with these social patterns, then we shall be under the necessity of proving that our intellectual heritage is so valuable that we can afford to ignore everything else. In the long run, if not immediately, we are likely through the exercise of good judgment to balance our curriculum by giving due recognition to all phases of life appropriate to children and essential to social continuity.

This situation presents an unusual opportunity and a clear challenge to teachers and to supervisors of home economics. You are concerned with the problems of the home. These problems are not material only; they are social, moral, esthetic, economic, and spiritual. Nor are these problems of interest and of importance to girls and women only; they are of equal concern to boys and girls and to men and women. Of course there will be differentiation of treatment just as in the well-ordered home there will be a division of labor.

In order that the whole problem of the home may be given adequate consideration, it seems desirable that the departments of home economics and of industrial arts be unified in some manner helpful to both. If we had a department of ethics in the schools, it should become a part of the merger. The readiest solution is to make the teaching of ethics a part of the obligation of every teacher of home economics or industrial arts.

The kind of curriculum here proposed assumes that a unified program dealing with the home is to be required of all boys and girls. It will be sufficiently comprehensive to begin in the early years of the elementary school and to extend throughout youth. A sufficient number of teachers adequately prepared to conduct this program is not at present available. It will be necessary, therefore, to make small beginnings and to proceed slowly until teacher-training institutions can meet the demand.

Sharp criticism is likely to be directed against these proposals. It will be said, for example, that the program as proposed would tend to indoctrinate children and youths with fixed ideas at the very time when the validity of the home as a social unit is in serious question. The Russian experiment will be cited as a warning against conservative doctrines. The American practice of employing large numbers of married women in offices, shops, and factories will be given as another instance of change. There is no final dogmatic answer to these criticisms. Experiment and change are continuous. Sometimes, however, the opposition to orderly development as a consequence of social evolution springs from nothing else than a desire for change for its own sake. Such opposition must be accepted as a part of the problem of those who believe in the continuity of established

values. My own imagination cannot view with complacency the picture of a time when children shall be taken from their parents and reared in institutions supported by the state; nor can it remain undisturbed by the suggestion that for the fixed relationship and loyalty of man and wife shall be substituted the promiscuity which knows no loyalty and recognizes no duty.

What the future holds in store we do not know; but we know that at present the home is an established institution which the American school is obligated to support. As a heritage from the past it is of at least equal importance with mathematics, which also is a heritage from the past. No one proposes to reject Euclidian geometry because there is a possible non-Euclidian geometry with totally different conclusions. When the fourth dimension is established as a practical fact, we shall discard our three-dimensional mathematics, but not before.

In conclusion I return to the beginning. Home economics is a fundamental in the curriculum. The introduction of new methods and new materials from this department will tend to restore the balance to a school program which now overemphasizes the intellectual and tends to neglect the social. Leadership in this new movement waits upon action by those teachers, supervisors, and superintendents who believe that the American schools have social obligations extending far beyond the range of the present curriculum.

DIRECTED OBSERVATION OF CHILDREN FOR CLASSES IN CHILD DEVELOPMENT A SYMPOSIUM

At the 1934 meeting of the American Home Economics Association the department of child development and parental education devoted a session to directed observation of children, as was reported in the 1934 volume of the Journal, pages 351 and 503. Because of the strong interest in the subject and the teachers' need for help, the department of elementary and secondary schools and the department of child development and parental education will hold a joint meeting in Chicago, June 24, 1935, to consider it further. A panel of ten or twelve persons will start the discussion, but it is hoped that the most important contributions will come from the floor. The following papers have been assembled by Florence E. Winchell, chairman of the department of child development and parental education, and are printed now not only for the benefit of those who cannot come to Chicago but to help those who can be there to prepare themselves for active participation in the discussion.

SOME MAJOR PROBLEMS

FLORENCE E. WINCHELL

Directed observation is recognized as fundamental to the child care and development unit taught in many high schools today, but several questions arise when one attempts to put it into practice. Among them are: What are the specific objectives of these observations? How can they be made practical in various school situations? How can observation blanks be used to the best advantage?

As to the first question, namely, what one expects a pupil to get from a specific observation, perhaps the average teacher does not answer this even to herself before she makes the assignment. Would it not be advantageous to decide what would be desirable as outcomes and then plan the observation so that the objectives may be attained? One may have a general aim for a series of lessons and observations and a specific objective for a single observation.

To analyze her purposes and really formulate them on paper forces a teacher to think carefully about the limitations and abilities of the pupils who are to do the observing. What are they able to see with their present background of knowledge and experience? To what should their attention be directed at this stage in their study? Various aims may be in the teacher's mind under different conditions. For example, she may wish to guide her pupils:

1. To study the physical environment, that is, air, sunshine, space, health protection, and equipment
2. To study the routine procedures of eating, sleeping, toileting, and dressing
3. To observe the kinds of play materials an individual child chooses or the kind of materials a teacher provides for the children of a given age
4. To study the physical, intellectual, emotional, and social development of children at various age levels
5. To follow a particular child's growth and development through a period of time
6. To study specific children in problem-solving situations
7. To observe an individual child's behavior in a specific type of situation
8. To observe the adults in their relation with the children, including methods of handling various situations

It is the rare high school that can boast a nursery school for observation; conse-

quently, the teacher usually has to devise other means of providing opportunities for observing children.

Some teachers believe the use of blanks for recording observation has many distinct advantages. This raises the problem of drawing up a suitable blank. How can the blanks be kept simple and still serve the purposes the teacher has in mind?

Such major problems are all squarely faced by the teacher who uses observation successfully as a method of teaching child care.

SUGGESTIONS FOR HIGH SCHOOL TEACHERS

ESTHER M. MORRIS AND GLADYS LOVE

The specific objectives for directed observations of young children are:

1. To help the pupil gain greater knowledge and a more sympathetic understanding of young children
2. To realize the need for appropriate physical surroundings in relation to the size and age of the children such as (a) low hooks for clothing; (b) low tables, washbowls, hooks for towels, trays for soap, brushes; (c) suitable types of play equipment
3. To gain an appreciation of children's interest at various age levels
4. To gain a better understanding of a child's rights as a member of the family
5. To realize the need for early training in relation to food, health, and cleanliness
6. To gain an appreciation of desirable characteristics needed for those working with young children
7. To direct the high school girl's interest in caring for young children
8. To develop her ability to analyze her own behavior in relation to managing young children

Ways of making directed observations more practical in various situations are:

1. Talk over your plan with the kindergarten and nursery school teachers, parents, and others concerned in order that they may be familiar with the objectives the high school girl is attempting to attain
2. When observing a child, plan to have the pupil observe only one or two activities at one time, then later plan to provide opportunities for the observation of a series of activities
3. Some of the activities which are easy for the high school girl to observe are (a) food habits, (b) habits of cleanliness, (c) habits of sleep, (d) habits of play, (e) caring for his own possessions, (f) behavior problems
4. The girls should assist in deciding on the items to be observed. The items should be stated in a brief and definite form
5. To gain the best results from observations
   (a) The child's activity should be interrupted as little as possible
   (b) The child should be unconscious that he is being observed
   (c) The observer should talk to the child only when he comes to her
   (d) The observer should be inconspicuous
   (e) The number of observers in relation to the size of the group observed should be small
   (f) The situations under which the child is being observed should vary, as in nursery school, kindergarten, playground, home
6. After observing a child, a girl should have some opportunity of helping with his care
7. Following study of the individual child, the girl should be given a chance of observing and then helping in the care of a group of children, as in nursery school or kindergarten

Suggested ways of using the observation blanks to the best advantage are:

1. The high school girl should study the observation blank and have the items to be filled in clearly in mind before observing the child
2. The form of the observation blank should be such that the pupil will want to make an interesting report of the study
   (a) It should provide adequate space for necessary comments
   (b) It should avoid too many details
3. The report should be written after observing the child and not during the observation
4. In order that there may be a class discussion of the young children's abilities at different age levels it would be desirable to omit the name from the observation blank of the child being observed. (The teacher might have the children numbered for her own checking purposes)

OBSERVATION REPORT BLANKS DEVELOPED BY PUPILS

DOROTHY JOHNSON

The fact that most high school pupils have ample opportunity for observing children in their own and their neighbors' families suggests one of the best methods for the work in child care and training. In this it is valuable to use an observation guide which may be developed in class with the help of the students.

In one class the work was started by showing pictures of children engaged in various activities, of clothes for different ages and uses, and of suitable toys for different ages and purposes with the idea of arousing interest in a child development unit. The display also enabled the students to set up their own objectives. When the time came for the child care and training unit each girl already had in mind a child whom she wanted to observe, a baby brother or sister, a visiting niece or nephew, or a neighbor's child. To be sure that there would be full cooperation of all concerned, it was necessary for the teacher to make a visit to the home or a specific inquiry. In one instance the girl herself carried the responsibility of making the initial contact, the teacher having helped her in planning the right approach to the home.

In one case class study and discussion brought out the fact that if the observations of children are to be intelligently carried out and the children's habits observed in the natural environment certain practices must be established. The observer must be as inconspicuous as possible. The child should not be conscious that he is being observed. The results of the observations should be kept in strict confidence and not discussed outside of class. Observations should not be made when the high school girl has a cold or any infectious disease. The girl should report what the child does, not what she thinks he tries to do or how she thinks he feels.

Out of this discussion came the suggestion that something would be needed as an aid in making the observation of the child, as different students might notice different things when observing the same situation. This led to the development of the following outline of points that might be observed and recorded:

- Name, address, age, sex of child
- Occupation of father, mother
- Personnel of family
- Child's daily schedule
- Indications of physical development, general health, nutritional condition
- Child's activities as revealed through:
  - Play
  - Care of self: dressing, feeding, washing, walking, running, climbing, drawing
- Habits:
  - Food: likes, dislikes, kind and amount eaten, regularity, appetite
  - Sleep: amount, regularity, daytime, rest periods, own room, alone, thumb sucking
  - Toilet: regularity, control
  - Devices for producing good habits
- Clothing:
  - Number, kind, style, and fabric of garments
  - Types of fasteners and pockets
- Equipment:
  - Kinds of toys, pets, books, music, pictures; how cared for
- Language:
  - Types of words, length of sentences, clearness of expression, speech defects
- Relationship to other children or adults:
  - Respect for rights and belongings of others
  - Cooperation, independence
  - Signs of love, affection, or sympathy
  - Indications of desire for attention
  - Ways of meeting conflict: bragging, dawdling, teasing, sulking, blaming, daydreaming
  - Evidences of docility or initiative, flightiness or persistence, domination
  - Anxieties shown: fears, timidities
  - Kinds of antagonistic attitudes shown: hates, small annoyances, jealousy, tantrums
  - Signs of unwillingness to face reality

From their study and discussion the students felt there were so many things to observe that it would be difficult to try to watch for everything at once. Someone suggested that they concentrate on one point at a time. Thus a specific guide for observation was worked out, including all points considered essential:

1. History and daily schedule
2. Physical development
3. Language
4. Clothing
5. Habits
6. Play, play space, and playthings
7. Books and music
8. Relationships to other children or adults

As an example, the topics and questions on the guide used for observing play, play space, and playthings is given:

1. Play
   a. Does the child play contentedly alone? Explain.
   b. With whom does the child play?
   c. Is an adult usually with the child?
2. Play space
   a. Indoors: child plays in playroom, bedroom, living room, sun porch, kitchen, or in no particular place; where does the child keep his toys?
   b. Outdoors: Where does child play when outdoors? How is child kept in play space?
3. Playthings
   a. List the playthings the child has. Underline any that are homemade. Check the favorite toy or toys.
   b. In what ways does the child play with his favorite toys?
   c. How long does he play with one toy?
   d. Underline the child's interests and favorite play occupations: running, jumping, climbing, wading, digging, use of kiddie-kar, wagons, rocking horse, slide, velocipede, swing, see-saw, kitchen utensils, clay, crayons, scissors, tools, sand, balls, mechanical contrivances, live animals, singing, pictures, piano, radio, stories read and stories told
   e. Does child have any play equipment that is permanently outdoors? List.
   f. Does child have any pets? What kind?
   g. In what types of play was the child engaged while you were there? Describe as many as possible (dramatic, imitative, physical exercise, building, rhythmic, etc.)
   h. Does child include you in his play? How?
4. What have been the child's contacts outside the home, such as park, zoo, downtown, auto riding, others?
5. Clip to the sheet an example of the child's drawing or writing, labelled to show his interpretation of it.
6. Comments

Because one student had a severe cold and two others had selected children too young for the use of all guides, an alternative for each observation report was worked out which consisted of outside reading with questions or suggestions for report:

ALTERNATIVE FOR OBSERVATION

1. Read the article "Fun for the Stay-at-Home Child" by Maude Cushing Nash in the *Parents' Magazine* for October 1933. Outline briefly
2. Answer the following questions from "Children Need Pets" by Marion Haller in the *Parents' Magazine* for July 1933
   a. How does the character of a child benefit by having pets to care for?
   b. Name several small pets that would be suitable for a child whose mother thought a puppy or dog would be too big for the house
   c. What care is essential for all pets?
   d. Which animal is effective in teaching a child how far his rights as master go? Explain

These directed observations of children have served as a basis for discussions and led to a greater knowledge and better understanding of little children. The observation report blanks helped to focus attention on essentials and clarify students' ideas.

SIGNS OF THE TIMES

HOME ECONOMICS TEXTBOOKS USED IN SECONDARY SCHOOLS

RUTH SEAL HALVORSON

The choice of textbooks is one of the important phases of home economics teaching; yet few attempts have been made to evaluate them systematically and objectively. In the JOURNAL for September 1928, Ella J. Rose reported an analytical study of the home economics books used in secondary schools of Minnesota in which she listed desirable characteristics and suggested the need of further study of the question, including such topics as desirable objective standards and the relative importance in practical homemaking of the various phases of subject matter. Since then nothing further seems to have been published on the subject, although home economics teachers are becoming more and more conscious of the fact that many of the accepted textbooks are not being revised to keep them in line with the adjustments which our rapidly changing economic and social conditions are forcing upon our home life and hence upon the home economics teaching in our schools.

With this in mind, a critical analysis and evaluation of the content of the home economics textbooks most widely used in Ohio's secondary schools was undertaken and completed in June 1934.

Questionnaires were sent to home economics teachers throughout the state, and 169 were filled in and returned. These returns came from all the counties in the state, from towns and cities of varying sizes, and should therefore be fairly representative.

Ninety-eight replies indicated that the books were owned by the pupils and fifty-four that they were furnished by the schools, eleven of which charge the children a rental fee. Twenty-six replies indicated that books are furnished free to children of indigent parents, and seventeen that the reference texts were owned by the teacher.

Twenty-six different books were reported in use as basic texts and thirty-nine as reference books. In several instances an obsolete edition was still in use.

It was found that twelve books were in use in eight or more schools, and these were selected for special study. They included five on foods, five on clothing, and two pertaining to general home management.

Their contents were quantitatively analyzed to ascertain which topics occupied the greatest amount of space. In the absence of other criteria, it was necessary to assume tentatively that there is some relation between the amount of space devoted to a large unit or topic and the value assigned to it by the author.

The analysis was arranged to show the space in each book occupied by text material, which was divided into two classifications, subject matter and teaching aids. Each book was further analyzed page by page to find the number of lines devoted to the different phases of subject matter; the equivalent number of pages given to each was reckoned, and the percentage of the whole book which each occupied was worked out.

The analyses revealed that in most cases more than fifty per cent of the content of the books was given over to the so-called household production activities, while less than ten per cent fell to the problems of consumption. Very little stress was given to training in the wise use of income.

On comparing the earlier and later books among the twelve, a slight trend seems to be discernible away from much drill on skills and toward training the judgment and appreciation of future homemakers. However, most of them seem still to have a long way to go before they aim directly at life as it exists today. When woman's work was literally within the home and practically all of our food and clothing was produced there, the manual skills and technics of the homemaking activities were the most important part of a girl's education and books that emphasized these served the purpose very well. However, the changes which have been wrought by the mechanical age in which we live, by the entrance of women into the business world, and last but not least, by the economic depression now make us realize the necessity for a shift of emphasis. What we need now is texts which consider the economic problems of the consumer, which include the making and use of practical budgets and the proper selection and care of food, clothing, and other household goods. The preservation of health, the care and training of children, good family relationships, and the proper use of leisure time are other topics which should receive a great deal more space than they do at present. Many of the books now in use might well be revised to apply problem-solving methods to the actual, everyday situations which pupils now face so that they will provide an adequate basis for instruction that will prepare pupils for future adjustment and living.

This investigation of books used in Ohio makes it evident that there is a dearth of adequate home economics textbooks on the market today. The fact that there is such a large number of different books in use would seem to indicate a general feeling of dissatisfaction and a groping on the part of instructors for adequate textbook material. This offers a challenge to the authors of home economics textbooks.

SALARIES PAID HOME ECONOMICS SUPERVISORS

WILLIAM G. CARR

The seventh biennial survey of salaries paid city school employees conducted by the Research Division of the National Education Association has just been completed.[1] This year the number of cities reporting was 1,989. Nearly three-fifths of all cities in the country, and practically every one of the nation's larger cities, are included. This article deals especially with the salaries paid supervisors of home economics and their assistants in city school systems.

Data are not reported regarding teachers of home economics, since the questionnaire did not ask for separate reports on teachers' salaries in terms of the subject of instruction. The prevailing practice is to place teachers of home economics on the same salary schedules as other teachers. A check of the salary schedules adopted since 1927 in 57 cities over 30,000 population shows that only 8 cities, or 14 per cent, make special provision for home economics teachers. Salaries for all high school teachers, together with the per cent of reduction, are given in table 1.

Trends since 1930–31. It is well known that all school salaries have suffered reductions during the economic depression. Table 2 shows this trend in terms of the median salaries for home economics supervisors and their immediate assistants as revealed by the biennial surveys for the school years 1930–31, 1932–33, 1934–35. In reviewing these figures it should be remembered that probably the lowest point reached by salaries is not shown. Nation-

[1] The full reports of these surveys are available in various *Research Bulletins* and in the *Special Salary Tabulations*. Students of salary problems are invited to write the Research Division, National Education Association, 1201 Sixteenth Street, N.W., Washington, D. C., for further details.

TABLE 1

Salaries paid high school teachers in 1930–31, 1932–33, and 1934–35

POPULATION GROUPS	MEDIAN SALARY PAID JUNIOR HIGH SCHOOL TEACHERS					MEDIAN SALARY PAID HIGH SCHOOL TEACHERS				
	1931	1933	1935	Per cent decrease		1931	1933	1935	Per cent decrease	
				1931–35	1933–35				1931–35	1933–35
I. Cities over 100,000	$2,348	$2,204	$2,078	11.50	5.72	$2,731	$2,479	$2,436	10.80	1.73
II. 30,000 to 100,000	1,860	1,761	1,612	13.33	8.46	2,111	1,994	1,834	13.12	8.02
III. 10,000 to 30,000	1,619	1,525	1,390	14.14	8.85	1,876	1,747	1,603	14.55	8.24
IV. 5,000 to 10,000	1,494	1,376	1,208	19.14	12.21	1,692	1,575	1,379	18.50	12.44
V. 2,500 to 5,000	1,360	1,270	1,125	17.28	11.42	1,547	1,429	1,260	18.55	11.83

TABLE 2

Salaries paid directors or supervisors of home economics in 1930–31, 1932–33, and 1934–35

POPULATION GROUPS	MEDIAN SALARY PAID DIRECTORS OR SUPERVISORS[1]			MEDIAN SALARY PAID ASSISTANT DIRECTORS OR SUPERVISORS[2]		
	1931	1933	1935	1931	1933	1935
I. Cities over 100,000	$3,271	$2,975	$2,770	$3,188	$2,950	$2,850
II. 30,000 to 100,000	2,485	2,354	2,108	1,833	1,814	1,471
III. 10,000 to 30,000	1,832	1,750	1,642	1,613	1,625	1,420
IV. 5,000 to 10,000	1,650	1,494	1,313	1,420	1,279	1,158
V. 2,500 to 5,000	1,526	1,376	1,253			

[1] Based on salaries reported for the highest paid director or supervisor of home economics, one such director or supervisor being included for each city reporting.

[2] Based on salaries reported for directors or supervisors of home economics other than the one receiving the highest salary in each city.

wide estimates as compiled from state departments of education indicate that the 1933–34 average salary of all teachers, principals, and supervisors was approximately seven per cent below that of 1932–33, and about 0.3 per cent below that of 1934–35.

It will be noted that in cities of over 100,000 the median salary paid directors or supervisors of home economics in 1935 is lower than that paid assistant directors or supervisors for the same year. This is due to the fact that the larger cities which pay the higher salaries have a greater number of directors or supervisors of home economics.

These figures should also be considered in connection with suitable measures of the cost of living. Although no index numbers of the cost of living are perfectly adapted to the teaching group, the following trends are indicated by recent reports of the National Industrial Conference Board:

Date	*Index of cost of living*
July 1929	100.0
February 1930	98.5
February 1931	89.6
February 1932	80.1
February 1933	72.1
February 1934	78.3
February 1935	82.4

The table also brings out the usual tendency for salaries to increase with the size of the city. As a general rule the differential between cities of Groups I and II is larger than that between Groups II and III, and so on down to the smallest groups. The figures also indicate that teachers in

cities of Group IV, that is, cities between 5,000 and 10,000 in population, have suffered the most severe proportionate salary reductions. This is true whether the decrease is calculated on the basis of 1933 or 1931 salaries. However, no groups, and very few individuals, within the teaching profession have escaped salary reductions. There is already a slight tendency toward restoration. It remains to be seen, however, whether present trends toward economic recovery and higher living costs will be paralleled by salary increases or whether school employees are to be left stranded at the low levels enforced by the depression.

HEIGHT-WEIGHT-AGE MEASUREMENTS OF CHINESE GIRLS

WIHLMA ELIZABETH WATERS AND CARRIE CASTLE DOZIER

Physical measurements obtained in connection with a nutritional investigation are presented in the belief that they will contribute to our understanding of height-weight-age standards for Chinese children.

Thirty-eight girls ranging in age from five to eighteen years, Cantonese by birth or first-generation American Chinese of Cantonese parentage, were under observation for a total period of approximately twenty weeks. They lived in a spacious "home," ideally located in residential environs where the climate not only allows but encourages more than average outdoor activity. The life of the house is organized on a partially cooperative basis and may be described as more that of a superior private home than of an institution. There is a consulting physician, a resident graduate nurse, and a sympathetic and highly intelligent occidental supervisor who has several Chinese assistants.

The diet makes an interesting study. Chinese dinners are served on Mondays, Wednesdays, and Fridays; at other times the food is typically American. There is never any restriction on the amount of food eaten, and in addition to the abundant customary three meals, a supplementary luncheon of fresh fruit, milk, and one tablespoon of cod-liver oil is provided daily at four o'clock for each child.

The cereal, milk, and sugar contents of the dietary were approximately those recommended by Rose and Gray (1) for moderate-cost institutional food; the fruit and vegetable intake was 5 per cent higher and fats and oils 5 per cent lower. The most significant difference was the higher protein intake. Meat, fish, eggs, and cheese supplied 14 per cent of the caloric intake, whereas Rose and Gray set the standard at 8 per cent. The relationship of the fat and protein contents is, however, modified somewhat by the fact that pork, which is rich in fat, is the meat most frequently used in Chinese cookery, so that fat would be in excess of the figure given.

All the children of school age attend public schools and are there classified in the underweight group whenever an individual's weight is below that expected of a white child of the same sex and approximate age and height. Anyone who falls into the underweight class immediately has her regular diet augmented by prescribed additions of eggs, milk, and cod-liver oil, and the bedtime hour is moved foward to seven-thirty.

The records kept by physician and nurse show a noticeable freedom from colds and other epidemics to which childhood is prone, and the dentist reports splendid teeth formation and unusual exemption from caries.

One may recapitulate by stating that food, sanitation, rest, play, and work seem as ideal as it is possible to provide and the figures in the accompanying table reveal heights and weights of exceptionally well-cared for Chinese children.

The point of immediate interest in this table is the greater weights of these Chinese children than would be expected from avail-

Observed age, height, and weight of Chinese girls

CHILD	AGE	OBSERVED HEIGHT	WEIGHT	
			Observed	Baldwin and Wood's standard
	years	*inches*	*pounds*	*pounds*
M. M.	18	62	117	118
L. L.	18	61	126	116
M. F. W.	18	60	110	111
B. L.	17	63	124	119
P. O.	17	61	128	113
W. H. L.	17	59	102	104
L. Y.	16	64	116	120
L. K.	16	62	111	115
B. M. G.	16	60	92	112
B. L.	16	60	112	108
K. L.	16	58	101	101
M. O.	15	63	119	119
R. W.	15	62	114	113
M. L.	15	60	97	105
L. H. M.	14	59	99	96
M. L.	14	59	94	96
M. L.	14	59	94	96
L. T.	14	58	81	93
D. G.	13	60	107	97
T. S. H.	13	59	92	92
C. C.	13	58	88	88
L. C.	12	56	68	79
A. C.	11	55	83	74
E. L.	11	54	69	71
E. W.	11	53	67	68
V. W.	11	52	70	68
L. W.	10	54	73	74
R. J. W.	10	54	64	70
B. L.	10	53	62	70
G. K.	10	53	62	68
R. C.	10	52	64	64
M. L.	10	52	60	64
A. W. W.	8	49	51	55
C. L.	8	48	52	52
D. Q.	8	47	47	50
F. W.	6	44	49	42
A. J. W.	6	42	39	39
M. W.	6	41	42	37

able data. Fifteen of the 38 are above the average weight for American children as given by Baldwin and Wood, and only one is as much as 10 per cent underweight when judged by the same standard.

The figures are all the more significant in view of the general agreement that the average Chinese child is smaller than her American counterpart in age and height (2), and also that the Cantonese are smaller than Chinese of any other district. The conclusion that optimum nurture has accomplished the unexpected is scarcely avoidable. The further fact that no increase in rate of growth could be detected when a food rich in vitamin B was added to the diet supports the conclusion that the group exhibits optimum nutritive condition.

A second point worthy of mention that came to our attention is that a definitely larger average increase in weight was manifest during January and February than in November and December. Chaney's (3) results with a small group of children in approximately the same climate come immediately to mind. She found the average gain from October to December was double that made from January to March. That the two groups are examples of poor and excellent physical specimens, respectively, may not be an unrelated factor in the divergent results.

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HOME ECONOMICS EXTENSION EMBLEM

MYRTLE WELDON

For a number of years home economists in the extension field have been interested in

the adoption of a national emblem to be used in connection with the home economics extension program with adults, much as the 4-H emblem is used in connection with the junior club program. Differences in terminology, in proposed uses of the emblem, in types of organization, in names both of extension personnel and organization, have all presented problems.

Some years ago a committee was appointed by the home economics extension department of the American Home Economics Association to consider the matter, and it has presented a number of designs for consideration from time to time. Several designs which received favorable comment were submitted to the various states in 1934, and a final choice was reached by the votes from the states.

The emblem adopted was designed by Ida C. Hagman, extension specialist in home improvement in Kentucky. It is circular in shape with fluted edge. The design is worked into three concentric circles forming two borders and a central or inner circle. The outside border bears the legend "Cooperative Extension Service," which is the service through which the entire program is carried on. At the bottom of the outside border are the letters "H. D." standing for Home Demonstration, that branch of the service which is principally concerned with the home and its activities. In the second border are the words "Home, Family, Community," that is, the institutions for which the extension service exists, which are the keystones of a satisfying rural life. In the spaces between the words are a spray of wheat, one of oak, and a Roman lamp symbolizing the productivity of the farm home, its strength and endurance and enlightenment. In the inner circle is pictured the hearth fire, symbolic of the finer attributes of the home, such as warmth, comfort, friendship, fellowship, hospitality, and happiness.

Following the acceptance of the emblem, makers of jewelry were invited to submit samples and bids for a pin and also for dies to be used for printing and engraving, and a contract was awarded a few months ago.

The pin is a three-quarter-inch, gold-filled one with safety clasp and with dark blue enamel used as the background of the words "Home, Family, and Community." The price is forty cents. The pin may be worn by members of extension groups in the United States and its possessions and by members of extension staffs. Electrotype dies for printing or steel die for engraving are available for use on letterheads, circulars, bulletins, and in other ways connected with the home economics extension program. Descriptive circulars, with prices and picture, may be obtained from the maker, Oliver-Kahse, Inc., 1048 University Avenue, Rochester, New York.

TRENDS IN CONSUMER BUYING OF HOUSEHOLD FABRICS

HENRIETTA M. THOMPSON AND ADA CAMP DOWLING

To show how the retail purchases of household fabrics had been affected by economic and other conditions during the five years beginning 1929, a study was made from sales records of eight leading stores of Tuscaloosa, Alabama. This is a town of about twenty thousand, and the stores in question are believed to be representative of the western portion of the state. The work was done in the department of clothing and textiles of the University of Alabama, which obtained the cooperation of the store managers. Figures showing sales of certain articles in 1929 and 1934 were supplied by the stores and were collected and tabulated by a graduate student.

The twelve classes of articles studied were bedspreads, blankets, breakfast sets, curtains and curtain materials, draperies, napkins, pillowcases, rugs, sheets and sheeting,

table damask, bath towels, and kitchen towels.

The average number of sales of all the articles studied was 14 per cent lower in 1934 than in 1929. Percentage changes for sales of the separate classes of goods were as follows:

	Per cent
Bedspreads	−24
Blankets	−22
Breakfast sets	+5
Curtains (finished)	−11
Draperies, total	−17
cotton	−26
linen	−12
rayon	+26
silk	−100
Napkins, total	−14
cotton	−9
linen	−19
Pillowcases	−14
Rugs	−34
Sheets	−15
Table damask	+6
Towels, bath	+9
Towels, kitchen	−56

When the items are classified according to fiber it appears that total sales of cotton fabrics decreased by 77 per cent; linen (except table damask) by 25 per cent; silk by 100 per cent. There was an increase in the sales of rayon for draperies, napkins, and tablecloths.

Despite decreased sales, cotton remained the favorite fiber for household fabrics in Tuscaloosa. Thus in bedspreads, cotton fabrics made up the greater number of sales in both years; but increased from 67 per cent in 1929 to 72 per cent in 1934. It may be noted in passing that during the same period the sales of rayon spreads decreased 25 per cent; no silk bedspreads were reported for 1934. In the case of blankets, the sales of cotton ones in both years were three times as great as the combined sales of part wool and wool. Cotton breakfast sets increased 100 per cent in sales in 1934. All the curtains and curtain material sold in 1934 were cotton except 10 pairs of rayon; marquisette was the most popular curtain material in all the stores. In 1934, 58 per cent of the yardage of drapery material was cotton. In napkins, cotton represented the bulk of the sales in both 1929 and 1934. Cotton is the only material used for the pillowcases and sheets sold in Tuscaloosa. More than three-fourths of the table damask sales in 1929 were cotton, as against five-sevenths in 1934. All bath towels sold in both years were cotton. In 1929, 84 per cent of the kitchen towels sold were cotton; this figure dropped to 72 per cent in 1934, thus going counter to the general tendency to increase the use of cotton for household textiles.

This general trend away from silk, wool, linen, and rayon fibers to more cotton is perhaps mainly due to the fact that consumers were looking for cheaper goods because they had less money to spend, but probably somewhat to the increased variety and beauty of the cotton fabrics.

A study of the sales of oilcloth for table covers shows that they increased only 17 per cent from 1929 to 1934, but it is noteworthy that the total quantity sold in 1934 was 12,200 yards or 162 per cent of the combined sales of cotton and linen damask yard goods. This surprisingly popular demand for oilcloth may be due to the fact that it is easier to keep clean, cheaper, and more colorful than damask.

Demand for linoleum, both in rugs and yard goods, increased by 32 per cent between 1929 and 1934. No doubt the low price of this floor covering was the main reason for its choice in preference to pile fabrics. The number of sales of Axminster rugs decreased 52 per cent and of the more expensive Wilton, 93 per cent. The manager of one store said, "The best grade of rug is not carried now," while a salesman for another firm declared, "We sell less and poorer quality than in 1929."

The data indicate that more color was used in 1934 than in 1929. While 40 per

cent of the bedspreads sold in 1929 were white, in 1934 only colored types were chosen, including striped and figured designs and solid colors. In blankets only those with checks, solid color, and colored borders were sold in 1934, whereas 48 per cent were white in 1929. Colored bordered breakfast sets increased by 37 per cent. Cream, ecru, yellow, and colored curtains increased in popularity, and there was less demand for white. Colored napkins or those with contrasting border were sold in 1934, though only white ones appeared in sales of 1929. While there was a 25 per cent increase in the sales of white pillowcases with colored border, the number sold was very small, only 60 pairs in 1929 and 75 pairs in 1934. Of table damask sold, 26 per cent was colored in 1934, as compared with 23 per cent in 1929. Bath towels with colored borders increased 41 per cent in 1934. Sales of kitchen or cup towels with color in them were 25 per cent higher in 1934 than in 1929.

When all types of household fabrics are considered, it is evident that color has invaded the traditional stronghold of white and that in some instances, such as bedspreads, it has displaced white altogether. This increased use of color has brightened up the homes, and in many instances beautiful color harmony has been worked out. This is particularly noticeable in bedrooms where it may affect everything from towels to curtains, though special attention seems to be given to it in connection with bedspreads and blankets.

There has been a decided decrease in the size of bedspreads, blankets, pillowcases, rugs, bath towels, and kitchen towels sold. Thus in blankets, the 70″ x 80″ size was the leader in sales for both years, representing 50 per cent of all those sold in 1929 and 67 per cent in 1934. This is a shorter length than will give satisfaction on a bed of standard size, on which one 90 inches is needed to tuck under at the foot of the mattress and come comfortably up over the shoulders of the sleeper. Only 5 per cent of those sold in 1934 were 90 inches in length.

Napkins also tended to grow smaller. In 1929, 5 per cent of those sold were 24 inches square, 31 per cent were 20 inches, and 64 per cent were 18 inches. In 1934 the two largest sizes had disappeared entirely; 85 per cent of all sales were 18 inches and 15 per cent only 15 inches, a smaller size than any reported in 1929.

The largest size bath towel carried in these stores, 24″ x 48″, is losing in popularity. In 1929 it represented 52 per cent of the sales; in 1934 only 7 per cent. On the other hand, the 1934 sales of the 22″ x 44″ size were 6 per cent greater than those of 1929, and the 20″ x 40″ size shows a yet greater gain, namely 38 per cent. In the case of kitchen towels, 56 per cent of those sold in 1929 were 18 inches wide, compared with only 8 per cent in 1934. Meanwhile sales of the 16-inch width had increased 48 per cent.

Sheets were one class of article in which size, or at least length, tended to increase. In 1929 only 4 per cent of those sold were 108 inches long, while in 1934 this figure had gone up to 12 per cent. This increased preference for longer, more comfortable sheets reflects a step forward in buying judgment.

The store records suggest a trend toward ready-made articles and more elaborate finishes in curtains and napkins during these five years. For example, the sale of curtain material by the yard decreased 31 per cent. In finished curtains a growing preference was apparent for ruffled over plain hemmed effects. Sales of plain hemmed curtains were 70 per cent lower in 1934 than in 1929, and the proportion of ruffled curtains among all the finished ones sold, increased from 68 to 88 per cent. In sales of finished napkins, those with plain hems were by far the most common; but the proportion of hemstitched ones was 5 per cent higher in 1934 than in

1929. This tendency toward elaboration was not so marked in the case of sheets, 94 per cent of those sold ready-made in 1934 having plain hems while only 6 per cent were hemstitched. The preference for bleached sheeting increased, however. In both years all ready-made sheets were bleached; but in 1929, 55 per cent of the sheeting sold by the yard was unbleached, a figure which fell to 50 per cent in 1934.

The prices for some articles were lower in 1934 than in 1929, but when decrease in size is taken into account the consumer is often seen to be paying more per square inch than she did in 1929. The average price of bath towels sold dropped by 18 per cent; but there was also a drop in size from 1152 to 884 square inches of material in a towel, or 23 per cent, so that on the basis of material purchased, the cost was 5 per cent higher in 1934. The average price for a hemmed kitchen towel was 10 cents in both years, but whereas in 1929 the towel contained 486 square inches of towel surface, in 1934 only 432 square inches. This means a 9 per cent decrease in size with no change in price.

TRAINING FOR HOUSEHOLD WORKERS: A WORK RELIEF PROJECT

RUTH AXTELL CHALMERS

Domestic service is one field in which opportunities of employment for women exist at present. In spite of economic conditions which have made it necessary for some families to eliminate the paid helper in the home, the supply of competent household workers is, in many places, insufficient to meet the demand. In these same places there are often women on relief who, with training, would be capable of filling the positions.

One of the objectives of the Federal Emergency Relief Administration is to help the individual become more employable so that he may regain financial independence. Therefore the Women's Section of the Work Division, in cooperation with the Emergency Education Division, has set up training schools for household workers as work projects. These projects employ qualified women who are certified for work relief to instruct others capable of profiting by the instruction.

In 12 states, directors of women's work have initiated such projects. Forty-five training courses were in operation in March, with more than 600 girls and women enrolled. Each project is set up according to the conditions to be met locally, but a common outline of procedure has been followed in all of them.

It is important, before establishing a training course, to survey the community to determine whether there is a sufficient demand for household workers and a sufficient number of women on relief adapted to the work to justify the undertaking. Careful selection of applicants is essential to the success of the program. Health, personal characteristics, and aptitude for the work are factors considered in assigning girls and women to a training course. A group as homogeneous as possible in age, education, and background simplifies the problem of providing adequate instruction for each individual.

In general, the program includes courses in marketing, meal planning, cooking and serving, care of the house and equipment, cleaning and laundering, child care, personal hygiene, and employer-employee relationships. In some places specialized work is offered separately for cooks, housemaids, and nursemaids.

Home economics teachers or other qualified persons certified under the emergency education program are employed as instructors. Staff home economists provide supervision. School and college departments of home economics, Y.W.C.A.'s, and other local organizations have in many

instances donated the services of members of their staffs.

Housing for the project is provided in various ways. In some cases the training course is established in connection with some other E.R.A. project. For instance, it may be set up in a Community Service Center or given in a camp for unemployed women. Schools, Y.W.C.A.'s, and civic organizations have donated space, and private homes have been opened for use as practice houses. Sometimes an unoccupied house is available, improvements being made in lieu of rent.

In Grand Rapids, Michigan, the problem of housing the training school has been solved in a particularly ingenious manner. The home of a widow on the relief rolls is being used as a resident school. Half of the rent is paid by the Relief Administration, and in addition the woman receives a weekly salary for her services as house mother so that she is earning her living instead of accepting direct relief.

The whole course is conducted at very little expense. Equipment needed in addition to that already in the house has been donated by commercial firms or loaned by individuals. Books are borrowed from the public library. The food allowance for each girl is transferred from her family's relief budget. There is one full-time teacher, paid from emergency education funds; instruction in special subjects is provided by local organizations.

The training school for household workers which has been developed as a part of a Community Service Center in West Virginia may be cited as a typical example of a successful project set up on the day-school instead of the resident plan. Through local cooperation, a suite of rooms at the Center has been furnished as a practice house. Here a group of ten girls meets five days a week during a six-weeks period. Every morning an hour of class work is held, conducted by the supervisor of the nutrition department, the supervisor of visiting housekeepers, and the supervisor of visiting nurses. The rest of the day is devoted to practical work carried on under the supervision of a full-time worker.

Training courses are still more or less in the experimental stage, but results are sufficiently definite to indicate their value. The main objective, to remove women from relief rolls by preparing them for jobs which actually exist, is being attained to a satisfactory degree.

Of the 1,146 girls and women who have already completed training courses in the various states, 413, or 36 per cent, have been successfully placed. In some places placement has reached almost 100 per cent. From Michigan, for instance, comes a report of 42 placements out of a total of 45 completing the work offered. Employers are reporting thorough satisfaction and, what is especially significant, they are in some cases willingly paying a wage nearly double that common in the community for inexperienced maids.

The follow-up work which is being done with the girls and their employers is developing a feeling of responsibility on the part of each. Advisory committees of employers and employment managers, established in connection with training courses, are stimulating local interest and cooperation and in many instances are helping to put domestic service on a sounder social and economic basis.

EDITORIAL

CHICAGO, JUNE 24 TO 28

The preliminary program of the annual meeting went to members of the American Home Economics Association on May 20. It shows that the week in Chicago will furnish a well-balanced combination of talks by distinguished visitors and specialists, reports of significant work done during the year, many opportunities for free discussion by the members of divisions, departments, and committees, friendly good times, and special visits to the interesting places in and near Chicago.

Association business will be transacted at the general session Wednesday morning and by the council on Monday and Thursday.

In planning the two public sessions the program committee tried to develop the central theme "The Family and Social Policy" in a way that would show to outsiders as well as to home economists how the interests and activities of home economics fit into the broader social picture.

On Monday evening the speakers will consider education for homemaking in the school program. Miss Raitt in her presidential address will present an integrated conception of the field of home economics.

At the Tuesday evening session the emphasis will be more on public policies in relation to the home and family. Dr. Sophonisba Breckinridge, professor of public welfare administration in the University of Chicago and one of the most distinguished women of the United States in the study of social welfare, will show how recent changes in government policy are affecting social and family welfare. The entry of the government into the field of housing is one of the newer policies that is likely to increase the attention given to this rather neglected division of home economics subject matter, and so the second speaker of the evening will tell about the government's housing projects and program and of the help that home economists might give in developing them. He will be Mr. John Ihlder, who has been active in many leading housing movements and who is now executive officer of the Alley Dwelling Authority for the District of Columbia.

To describe all the group meetings in detail is out of the question here, but perhaps it is worth while to mention some of the general impressions given by a hasty glance. For one thing, group discussions play a much larger part than a few years ago. Mr. Lindeman's article on page 348 and the symposium on page 355 show that at least one group hopes to make its members realize in advance the values and technic of panel discussions and come prepared to do their part. Others might well follow suit, at least to the extent of studying the topics up for discussion in their special lines and thinking out what they would like to say and what questions they would like to ask.

The subject of consumer education is not a new one in home economics meetings, but never before has it appeared in the agenda of so many special groups.

Social service is also more in evidence than usual, as is natural considering the extent to which home economists have been drawn into emergency relief work. Probably few home economists realize how much home economics has been interwoven into the programs developed under the F.E.R.A., for example. If its records could be analyzed with that in mind the picture would be surprising. At least part of it and of

other social service developments will appear at Chicago.

The Chicago program also reflects the growing interest in housing. Aside from the talk at the open session on Tuesday evening, this will show in the meetings of the division on the house, for which Marie White is acting as chairman in place of Mary Mason, whose heavy work in the F.E.R.A. forced her to resign. One regular session will be devoted to a fairly detailed picture of recent developments in housing, while the other will give opportunity for a free discussion of what home economics courses ought to include about housing in light of the present situation and probable developments. For college courses the discussion will start off with a talk by Jessie Harris, who has been studying the question as chairman of a subcommittee appointed at the informal conference called in November to consider what the Association should do in connection with the national housing program (see page 172 of the March JOURNAL). The discussion of high school courses will be opened by Edna Amidon. There will also be a special housing luncheon on Tuesday, at which Mr. Coleman Woodbury will talk about the work of managers of housing projects. This new field seems to offer possibilities for properly qualified home economists, as was shown by Miss Longan's paper in the April JOURNAL and an editorial on page 235 of that issue. And speaking of preparation for meetings, anyone wishing to study up for these housing ones will find plenty of other articles in recent numbers, not forgetting the syllabus that came out in March.

Several vital questions for home economics teachers are up for discussion by the department of elementary and secondary schools: education for the use of leisure at the luncheon on Wednesday and home economics in the integrated school program at the regular session on Thursday. On Monday afternoon the department joins with that of child development and parental education to discuss directed observation of children as a method of teaching child care (see page 355).

The fact that the National Congress of Parents and Teachers asked to arrange a meeting during the sessions of the American Home Economics Association is fine tribute to the increasing cooperation between the Congress and the Association and its value to both parties. The meeting is scheduled for Tuesday afternoon, a time when nothing else will claim the attention of the teachers, supervisors, and other home economists whose work is closest to that of the parent-teacher groups.

The program for student clubs will as usual give the girls plenty of chance to conduct their special business and see the things and places that most appeal to them. In some sessions the high school and college clubs will meet together; in others they will work separately, as for example, when the high school groups report on their consumer study of cosmetics and the college groups on theirs of hosiery.

One of the reasons why the Palmer House makes good headquarters for the meetings is that on the floor with most of the assembly rooms there is ample space for both educational and commercial exhibits, and that neither they nor the registration desks need overflow into the corridors. Indications are that commercial exhibits will be well up to recent standards of quantity and quality. Educational exhibits, especially those from government agencies that deal with home economics, are likely to be more numerous and telling than usual. It is hoped that a special housing exhibit can be arranged.

Social functions may be less elaborate than sometimes, but they bid fair to be quite as enjoyable and more numerous than many of us can find time for. They begin the day before the Association convenes officially, with a tea in lovely Ida Noyes Hall at the University of Chicago on Sunday after-

noon. After the Monday evening session will come a reception at which members can meet the distinguished guests and also one another. Plans for the banquet on Thursday are as mysterious as ever, but rumors suggest something unusual and diverting. As for trips—but consult your *Bulletin* and see for yourself. The main thing is to be sure you are at the Palmer House, Chicago, for as much as possible of the last week in June.

BILLS BEFORE CONGRESS

Discussion of pending legislation is always unsatisfactory in a magazine that must go to press some weeks before publication. Nevertheless, it seems worth while to speak briefly of several measures which were recently introduced in Congress and which are of special interest to home economics.

One group of these would provide increased federal support for work at land-grant institutions, including resident teaching, extension, and basic research. In April the Senate committee on agriculture and forestry reported out a bill introduced by Mr. Bankhead (S. 2228) and the corresponding committee of the House reported out one introduced into that chamber by Mr. Jones (H. R. 7160). These two bills are similar in general features, though when they left the two committees they differed in the sums allotted to the various types of work. Both provide appropriations increasing gradually over several years until they reach the total of $19,460,000 a year. Both also allot $12,000,000 of this total to extension, but they differ in the way in which the balance is divided between resident teaching and research.

Another group of bills purports to deal with purity of fabrics in general. Among them are one introduced into the House by Mr. Biermann (H. R. 7168) and concurrently introduced into the Senate by Mr. Capper (S. 2318). The purpose of this measure is stated as "To protect producers, manufacturers, and consumers from the unrevealed presence of substitutes and mixtures in woven or knitted fabrics and in garments or articles of apparel made therefrom, manufactured in any Territory of the United States or the District of Columbia, or transported or intended to be transported in interstate or foreign commerce, and providing penalties for the violation of the provisions of this Act, and for other purposes"; and it requires that goods and garments be labeled to show their fiber content. The measure is designated "The Truth in Fabrics Act of 1935," and in accordance with this title it deals with "mixed textile goods" as well as with "mixed woolen goods" and the use of virgin wool. However, the detailed provisions make it clear that the bill is primarily intended to protect the wool producers. As far as it goes, the measure is desirable from the point of view of consumers, but it would be more accurate to class it as "pure wool" than as "truth in fabric" legislation. Apparently we have here another illustration of the way in which legislation for some special interest seeks to appear as primarily in the public interest.

APPRECIATION OF ART

Friends of the late Dr. Henry Suzzallo will be glad to be reminded of his love of art and beauty and his desire to see it shared more widely by this paragraph which was printed on the back cover of the *American Magazine of Art* for November 1932:

> In art appreciation we must provide a wide exposure and opportunity for the expression of personal preference. You cannot tell the other fellow what is beautiful and make him sensitive to it. The best that you can do is to expose him to it. This kind of art exposure has been vastly greater in the older civilization. We must do it consciously and we must develop a technique to improve our work.

Grace G. Denny of the University of Washington, who called the lines to our attention, tells us that the words have been wrought in black stitches on cream-colored cloth by one of their home economics graduates, and that the embroidery is framed and hanging in their home economics majors room, where it seems to express more adequately than they themselves can do, how home economics can aid in developing appreciation of art.

HOME ECONOMICS ABROAD

Definite information about the extent, content, and organization of home economics in other countries is often asked for but is not easy to come by. The nearest approach to a systematic collection of facts that has been made in recent years—in fact, ever—is found in the reports sent in from member countries for the Fifth International Congress of Home Economics held in Berlin last summer. The printed proceedings of the Congress are in German, as was noted on page 326 of the May JOURNAL; but English versions of four general reports were mimeographed for the use of the English-speaking persons who attended the Congress, and fortunately a limited number of copies are still available. They are summaries of the information received on these four topics: I. Progress in Home Economics Education since 1927; II. Scientific Foundations of Home Economics; III. The Need of Scientific Management in the Household; IV. Training for Household Employment. The first report is particularly valuable in that it gives authoritative information about the home economics instruction now offered in the reporting countries. Because information of this sort is in such frequent demand, especially by student home economics clubs, the international committee of the American Home Economics Association is hoping to have the leading facts in the report briefly and simply restated. This version will of course not be so useful to the more serious student of home economics education as the full report. Anyone who is interested to obtain the original English report on this and the three other topics would therefore do well to obtain the set from Germany at once. The price is 5 Reichmarks for the set, and an international postal order is usually the most convenient means of payment. The cost in American money varies with the exchange, but it will probably be in the neighborhood of $2. Address Deutscher Akademische Austauschdienst E. V., Berlin NW 40, Kronprinzen-Ufer 13.

INTERNATIONAL CONGRESSES

If plans go through, this summer will see many international educational gatherings in Europe. Perhaps the largest of these will be the biennial convention of the World Federation of Education Associations in Oxford, August 10 to 17. Of special interest to home economists will be the section on home and school, whose sessions are scheduled for the afternoons of August 13 and 14 and whose speakers will include Professor L. P. Jacks, Mrs. Langworthy of the National Congress of Parents and Teachers in the U. S. A., Mr. W. J. S. Little of Scotland, Miss Marie Butts of the International Bureau of Education, and Mr. Charles Garnier of Paris. The programs are in charge of the International Federation of Home and School, whose biennial meeting will take place on the forenoon of August 14, with the president, Miss Ishbel MacDonald, in the chair. Further information about the program, travel, and the like may be obtained from the Washington office of the Federation, 1201 Sixteenth Street, N.W.

In connection with the World Exposition in Brussels a succession of educational congresses will be held in that city, among them

the Fifth International Congress of Familial Education, the dates of which, as noted in the November news, are July 31 to August 4. The program includes many topics under what in this country we call child care and development, parent education, and family relationships. The office of the Congress is 22 Avenue de l'Yser.

Earlier in the summer come several other congresses of interest to home economists, one on management and two on housing. The Sixth International Congress for Scientific Management is to be held in London, July 15 to 20, and the domestic section bids fair to reflect decided progress since the previous congress in Amsterdam in 1932. The address is 21 Tothill Street, London, S.W. 1, and the chairman of the American committee is Harry A. Hopf, Suite 3000, 500 Fifth Avenue, New York City.

One of the housing conferences meets in London at the same time, namely, the Fourteenth International Housing and Town Planning Congress. It is being arranged by the International Federation for Housing and Town Planning, whose London address is 25 Bedford Row, London, W.C. 1, and whose president is John Nolen, Harvard Square, Cambridge, Massachusetts. The Congress will be followed by a special four- or five-day conducted tour of housing developments in various parts of England.

The other housing congress comes earlier, June 27 to 30; it will be held in Prague and followed by a study tour in Czechoslovakia. Arrangements are in charge of the International Housing Association, Hansa-Allee 27, Frankfort A. M., Germany.

BUYING HOSIERY

The Ohio Home Economics Association has always been a leader in working for standardization of consumer goods or better buying methods, as we seem just now more inclined to call our efforts to help ordinary people to be intelligent in their purchases. The latest proof of this leadership is the publication of a simply written bulletin entitled "The Hose We Buy—and Wear," which was very carefully prepared by the Ohio Association's standardization committee under the chairmanship of Rosamond Cook. It begins with a description of the way stockings are made, taking up full-fashioned, circular, and cut construction; fibers; thread structure (with an excellent chart), gauge, and needle count; dyeing, boarding, and inspecting. Then comes a section on size and shape, and one on the points that make for durability and also those that lessen wear, the latter supplemented by a "check list" at the end of the pamphlet. The second part deals with selling methods, including the various ways in which the hosiery passes from the mill to the home. The use and abuse of trademarks are discussed at some length, bringing out these three facts:

> that hose are sold under trade names owned by manufacturer, wholesaler and retailer; that the *same hose* may be sold by manufacturer, wholesaler and retailer under *different names*; that any hose may be sold under an *unlimited number of names* without the consumer being aware that she is buying the same quality or even the goods of the same manufacturer.

There is also considerable discussion of price and its relation to quality. Among the many reasons why the former cannot be a guide to the latter we find given:

> In the first place price fluctuates in every department having to do with production and marketing, and this may be reflected in various ways by the price to the retailer. When the store buys direct from the manufacturer who will raise or lower price as necessary in order to keep the *quality* of his goods constant, then the consumer must either meet the higher price or change to another brand which may or may not be the equal of the one she has been buying. While the higher price in this case does not necessarily mean higher or better quality it does indicate reliability on the part of the producer in maintaining the standard he has set for the

product bearing his trade name. This would be true also of the wholesaler who bought on specification in order to be sure of standard quality for his goods. It is *not equally* true of the retailer's brand for with extremely few exceptions the retailer does not buy on specification and therefore does not really know the exact quality of the hose he sells. However, many stores plan to maintain regular price levels and in this case quality "made to sell at a price" is sought, therefore quality *must vary* since price is standard.

Closely related to this question are the perplexing ones of how to define quality and also how to judge it. On the latter point Miss Cook's committee made a very interesting special study:

Hose were tested in reliable technological laboratories for the qualities that make for durability and from these data a rating scale was made. Women were then asked to arrange samples of hose identical with those tested in order of preference for durability. A statistical comparison was then made between the two ratings, consumer and laboratory. The results showed that there was little relation between the judgment of the consumer and the actual quality of the hose as determined by the laboratory tests. One hose might be judged the "best" by several women but just as many judged it to be the "poorest." Even in the cases where the individual judgment appeared to be high there were enough errors to show that a "guess" would be about as reliable as the use of so-called judgment. In a few cases the hose were judged several times by the same women to see if the judgment of the individual remained constant and again the results were significantly against the consumer's judgment.

Since price is so often used as a criterion of quality we tested to see if the consumer could distinguish between the highest priced hose, the in-between-prices and the lowest price. Nine pairs of hose were used in the test, the price range including $1.95, $1.65, $1.35, three pairs at $1.00, one pair at $0.79 and two pairs at $0.59 each. More women were able to recognize the lowest priced hose than were able to find the highest priced quality, while in the middle class prices the results were a hopeless muddle. The hose having the least probability of durability, one of the $1.00 hose, was judged to be the highest in price by a larger per cent of the women than of the number who correctly placed the $1.95 hose as highest. While price may be assumed to be related to quality, this test clearly indicates the inability of the consumer to recognize this relationship in any reliable degree, and when used as a buying method its value can only be looked upon with doubt and suspicion.

In answering the question "What of the Future?" the bulletin tells of the hosiery industry's attempt to find some uniform method of grading and to standardize inspection. The objectives of the effort, as defined by Mr. Earl Constantine, managing director of the National Association of Hosiery Manufacturers, are: to hold up values, to bring about fairer competition, and to provide the relationship between standards of quality and utility that the professional buyer and the consumer have a right to expect. It is encouraging to have the chairman of the committee in charge report that good progress is being made toward agreement on the technical points involved. This part of the bulletin also outlines six definite things that consumers can do to further this good work, and this alone makes the bulletin indispensable for groups which are studying intelligent clothing selection or cooperation between consumers and industry to bring about conditions more satisfactory to both parties.

Copies of the bulletin may be purchased from Miss Rosamond Cook, School of Household Administration, University of Cincinnati, Cincinnati, Ohio; the price is 15 cents a copy or 10 cents each in lots of 12 or more.

A HOME ECONOMIST RETIRES

When home economics in Cleveland is mentioned most of us think of Adelaide Van Duzer, who has been supervisor of the work in the public schools there since it was organized into a department in 1914 and whose connection with it as teacher goes back to 1893. Despite this long term of service, she seems still so young in spirit that the news of her retirement at the end of this school year comes as a surprise. It

is pleasant to learn that she is resigning not because she feels old or exhausted but merely because she thinks "people ought to go before others are tired of them."

As Charles H. Lake, superintendent of schools, put it when her resignation was announced, the history of her work is the history of home economics courses in Cleveland. Her interest in it began about 1890 when she was one of a group of young women who brought a teacher on from Boston to give them special cooking lessons. Says Miss Van Duzer of this:

> The class met after school and on Saturday mornings. We were so impressed with the course that we began to give free lessons to seventh and eighth grade girls who cared to attend. And I became so interested that I always stayed near the teacher, Miss Carrie William. After a few months I began to teach some of the classes. Later I went to the Boston Cooking School and then returned to work in the public schools here.

Later Miss Van Duzer supplemented this training with special work at Western Reserve University and Columbia.

About ten years later the work that had begun with the more or less desultory courses in cooking and sewing was dignified with the name of domestic science, and after another decade it became known as home economics, in recognition of its widening scope. The department which Miss Van Duzer leaves ranks as one of the progressive ones of the country. It now has 150 teachers and has reached some 400,000 children. An editorial in a Cleveland paper says:

> Goodness knows how many Cleveland homes are happier because some of the Van Duzer precepts have been successfully applied by successive generations of Cleveland school girls. That is an impressive salute to 42 years of competent and practical educational service.

Her many friends the country over will join in congratulations to the woman who retires with such an accomplishment behind her and with public recognition as "one of the most competent and most beloved teachers that Cleveland schools have ever had." And to the congratulations will be added best wishes for the many years of combined usefulness and comparative leisure that all hope are ahead.

RESEARCH

A STUDY OF THE EFFECT OF THE ADDITION OF SODIUM CHLORIDE TO THE COOKING WATER UPON THE LOSS OF CALCIUM OF VEGETABLES

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CALCIUM is an essential element for good nutrition and one in which the average diet is likely to be deficient (1, 2). Although Sherman and Hawley (3) found calcium from vegetables not so well utilized by children as that derived from milk, and Pittman (4) reported that the calcium from navy beans did not give satisfactory calcium balances for the adult subjects in her study, other investigators have reported experiments which indicated that calcium from certain vegetables was satisfactorily utilized by adults (5, 6, 7, 8). Vegetables, therefore, may be considered one important source of calcium in the adult human diet.

The subject of the losses of nutrients of vegetables due to cooking has received the attention of several investigators. In the report of her study on the changes in food value of vegetables due to cooking, Denton (9) summarized the literature up to 1919 and added her own contribution to the subject. Peterson and Hoppert (10) cited the papers dealing particularly with mineral losses and reported their own study of the losses of dry matter, protein, calcium, magnesium, phosphorus, and iron in the cooking of 16 vegetables by four methods. More recently other investigators (11, 12, 13, 14, 15, 16) have reported losses of certain nutrients during the cooking of one or more vegetables.

The effect of the use of salt (sodium chloride) in the cooking water upon the loss of nutritive materials of vegetables has received some attention. Poppe (17) found that salt solutions (saturated, half saturated, and quarter saturated) removed less nitrogen than did distilled water and removed very little phosphorus and carbohydrate when fresh green peas were cooked (or soaked) in two and a half times their own weight of liquid for one hour at 100°C., two hours at 50°C., and 24 hours at 20°C.

Bodinus (18) stated that potatoes boiled in salted water lose 10 per cent of their mineral content and when cooked in unsalted water may lose as much as 33 per cent of their minerals. Masters (19) in a study of methods for cooking dried legumes reported that "the loss in solid matter tends to decrease with the addition of salt and the flavor is considerably improved." Denton (9) observed that the use of 1.5 per cent salt solution decreased the losses in fuel value due to boiling. Masters and Garbutt (20) stated that the addition of salt did not appear to have any marked effect either on the losses or the time of cooking.

Stienbarger (21) in a study of the losses of iron in the cooking of 7 vegetables in salted and unsalted water found in every case a greater loss of iron in the salted water. In a study on the scalding of vegetables as a preliminary step in canning, Magoon and Culpepper (22) found that scalding spinach in 2 per cent brine resulted in somewhat less

loss of mineral constituents than scalding in distilled water.

In a study reported by Nagai (23) in which fresh young carrots were sliced and cooked 130 minutes in salted and unsalted water (600 gm. of carrots and 30 gm. of salt to 1200 cc. of water), the results reported indicated that the addition of salt to the cooking water caused an increase in the loss of calcium, magnesium, and phosphorus in the form of (PO_4) but a decrease in the loss of iron.

Lanman and Minton (24) in a study on the effect of the addition of salt to vegetables at different intervals during the cooking period, considered as one factor the effect upon loss of ash. Their data indicated that there was somewhat greater loss of ash when salt was added before cooking than when no salt was used. When salt was added at the middle or the end of the cooking period no general trend in the loss of ash was evident. In their conclusions they stated: "There seems to be little correlation in the percentage loss of ash from various vegetables when chemically pure sodium chloride is added at relatively the same time and at different times in the cooking process."

Lang (25) determined the sodium, potassium, calcium, and phosphorus content of 6 fresh vegetables—cabbage, beets, peas, carrots, tomatoes, and cauliflower—uncooked and cooked in a 1 per cent salt (NaCl) solution. He pointed out that vegetables cooked in salt solution lose the greater part of their potassium but that, on the other hand, a large quantity of sodium is absorbed by the vegetables from the cooking water. He stated that in contrast to experiments reported in the literature on boiling vegetables without the addition of salt, his results on cooking vegetables in a 1 per cent NaCl solution seemingly showed less calcium loss and that the phosphorus value was only immaterially decreased. Since Lang did not cook the vegetables in unsalted as well as salted water, no direct comparison of losses for the two methods can be made from his data.

After the study herewith reported was completed, a paper by Kohman and others (26) was published in which it is stated that "in two different experiments, representing two lots of peas, there were extracted by cooking 200 gm. for 10 minutes in 1500 cc. of distilled water, respectively, 10.7 and 10.9 per cent of the calcium. If an 8 per cent salt solution was used, there were extracted, respectively, 39.5 and 48.1 per cent of the calcium."

Experimental procedure. The purpose of the present study was to determine the effect of the addition of sodium chloride upon the loss of calcium of vegetables under conditions of cooking comparable to those used in the household preparation of vegetables for table use.

For each vegetable a preliminary test was made to determine the length of time required for cooking the vegetable in boiling water to make it tender according to usual standards for table use.

In general a sufficient amount (about 4 or 5 pounds) of each vegetable to make from 9 to 12 one-hundred-gram samples was washed, trimmed, pared, or scraped as the case required, rinsed in distilled water, and placed between dry towels to remove surface moisture. The material was then cut into pieces of suitable size, and samples of approximately 100 gm. each were rapidly weighed out to tenths of a gram on a torsion balance. One set of 3 (or 4) samples was put into marked evaporating dishes and placed in an electric drying oven at 95° to 100°C. Similar samples were boiled in distilled water, and samples for a third set were boiled in water to which a weighed amount of chemically pure sodium chloride was added.

Beakers of one-liter capacity were used for the cooking. The gas jets were regulated to bring the water in all the beakers in

the series to boiling in the same length of time. The amount of water used was 250 cc., except in a few cases where the vegetable was bulky or a relatively long cooking period was necessary, in which cases a larger quantity of water was used. Salt (c.p. NaCl) was used in the proportion of 1.50 gm. per 250 cc. water, except for carrots for which the proportion was 1.00 gm. per 250 cc. water. The proportion of salt to water corresponded to that recommended for household use, namely, 1 to 1½ teaspoons salt per quart of water (12).

The water in each beaker was brought to boiling temperature before the vegetable sample was added. A stop watch was used for noting the time for cooking, the time being counted from the instant the vegetable was put into the boiling water. At the close of the cooking period the cooked samples were drained immediately for about one minute in a wire sieve, transferred to marked evaporating dishes, and dried in an electric oven at 95° to 100°C.

Each dried sample was pulverized in a mortar and carefully transferred to a marked porcelain crucible for ashing. The ashing was carried out in an electric muffle furnace. The calcium in the ash was determined by the McCrudden (27) method. The pH of the solution for the precipitation of the calcium was adjusted by the use of methyl red as an indicator according to the method of Shohl and Pedley (28).

The 0.01 N and 0.05 N potassium permanganate solutions used for the titrations were prepared and standardized according to the method described by Halverson and Bergeim (29). The potassium permanganate solution was restandardized each time a series of calcium determinations was made. Burettes calibrated by the U. S. Bureau of Standards were used for the titrations. The analytical weights used in the experimental work were calibrated against a set bearing a U. S. Bureau of Standards certificate. Redistilled water was used for the preparation of all solutions and the rinsing of all porcelain and glassware used in the analyses. The technic for the calcium determinations was subjected to preliminary tests and checked at intervals by the determination of calcium in known solutions.

Although the sodium chloride used was reagent quality NaCl, nevertheless calcium determinations were made. The results showed merely a trace of calcium—0.002 per cent.

With the exception of one lot of potatoes, the vegetables were purchased on the open market. The significant variations in the lots of vegetables and their preparations were as follows:

Samples for asparagus I (see table 1) were prepared by cutting the stalks (including the tips) into inch lengths. These pieces were mixed, weighed out into 100-gm. portions, and treated as indicated in the table. The dried samples of each set were combined, pulverized in a mortar and further dried to constant weight, after which weighed samples were taken for determination of the calcium. The tips and tender butts of the stalks of asparagus II were treated separately, following the general procedure already described.

Green beans I and II were prepared in August and September of one season, and III in July of another season.

The samples of cabbage I and II were from new, young heads. Those for I were prepared from a whole head finely chopped and mixed; those for II consisted of wedge-shaped sections from a head, each section containing one-twelfth of the whole.

Carrots I and II were products of two seasons. The carrots were scraped and cut into fourths lengthwise.

Peas I and II were products of two seasons.

Potatoes I and II were purchased in the late winter (February) of one season; potatoes III were purchased from the horticulture department of Purdue University in

September soon after they were dug for storage. Potatoes IV were "new" potatoes purchased in May. Potatoes V were fairly mature potatoes purchased in August. Potatoes VI were large, mature potatoes, purchased in November. Except in the case of IV, in which they were scraped, the tubers were pared before sampling.

Turnips I were purchased the last of October of one season, and II, early in October of another season. They were pared before sampling.

Results and discussion. The average calcium content of the various lots of the 7 vegetables, cooked and uncooked, used in this study is shown in table 1. The percentages of loss in cooking are summarized in table 2.

Since in many cases it was apparent that the difference in the loss of calcium in the

TABLE 1

Average calcium content of vegetables, raw and cooked with and without the addition of salt (c.p. sodium chloride) to the cooking water

VEGETABLE	NUMBER OF SAMPLES	QUANTITY OF DISTILLED WATER PER 100 GM. OF VEGETABLE	LENGTH OF COOKING PERIOD	AVERAGE CALCIUM CONTENT PER 100 GM. RAW VEGETABLE			DIFFERENCE IN CALCIUM CONTENT (a − b)	SIGNIFICANCE OF DIFFERENCE MEASURED BY "P"†
				Raw	(a) Cooked without salt	(b) Cooked with salt*		
		cc.	*minutes*	*mg.*	*mg.*	*mg.*	*mg.*	
Asparagus I	3	250	12	13.0	12.1	12.1	0.0	
Asparagus II								
Tips	3	250	15	22.3±0.35	19.6±0.30	21.1±0.39	−1.5	0.19
Butts	3	250	15	12.6±0.07	10.7±0.21	9.8±0.09	+0.9	0.14
Tips and butts combined		250		17.5	15.1	15.4	−0.3	
Green Beans I	3	250	35	50.0±0.49	49.6±0.80	45.6±0.38	+4.0	0.13
Green Beans II	3	300	40	54.9±0.50	48.3±0.83	47.3±1.19	+1.0	0.72
Green Beans III	4	300	40	49.0±1.28	47.2±0.86	44.7±0.96	+2.5	0.30
Cabbage I	3	400	12	35.6±0.11	22.3±0.14	19.1±0.02	+3.2	0.01
Cabbage II	3	400	12	35.6±0.11	24.4±0.53	23.9±0.05	+0.5	0.90
Carrots I*	3	250	30	38.6±0.78	32.9±0.78	30.6±0.77	+2.3	0.35
Carrots II*	4	250	24	37.4±0.91	31.9±0.87	30.7±0.74	+1.2	0.56
Peas I	3	250	20	19.0±0.12	15.5±0.13	14.2±0.13	+1.3	0.018
Peas II	4	250	20	22.2±0.24	18.0±0.08	16.2±0.24	+1.8	0.049
Potatoes I	3	250	30	4.5±0.03	2.8±0.04	4.0±0.02	−1.2	0.01
Potatoes II	3	250	30	3.7±0.02	2.4±0.04	3.0±0.07	−0.6	0.023
Potatoes III	4	250	20	6.1±0.26	4.0±0.23	4.1±0.09	−0.1	0.90
Potatoes IV	4	250	20	5.1±0.25	4.3±0.13	4.9±0.36	−0.6	0.12
Potatoes V	4	250	20	6.1±0.14	4.8±0.11	4.9±0.11	−0.1	0.65
Potatoes VI	4	250	20	6.0±0.04	4.2±0.09	4.2±0.09	0.0	
Turnips I	3	250	20	35.5±0.79	27.3±0.89	28.5±0.24	−1.3	0.48
Turnips II	4	250	20	47.8±0.33	38.4±0.25	36.4±0.27	+2.0	0.02

* 1.50 gm., c.p. NaCl used per 250 cc. distilled water, except in the case of carrots, in which the amount was 1.0 gm. NaCl.

† "p" determined by method of R. A. Fisher (30).

vegetables cooked in salted and in unsalted water was very little, it seemed desirable to analyze the data statistically, even though the number of samples was small. The probable errors of the means were calculated, and the significance of the difference of the means was tested by the method described by Fisher (30). Using the criterion that where the value of "p" is found to be greater than 0.05 the difference is not significant, it would seem that only in the case of cabbage I, peas I and II, potatoes I and II, and turnips II were the differences statistically significant.

TABLE 2

Percentage loss of calcium in vegetables cooked in unsalted and salted water

VEGETABLE	COOKED WITHOUT SALT	COOKED WITH SALT	APPARENT INCREASE (+) OR DECREASE (−) IN LOSS OF CALCIUM DUE TO USE OF SALT IN COOKING
	per cent	*per cent*	*per cent*
Asparagus I	6.9	6.9	0.0
Asparagus II (a)	12.1	5.4	−6.7
Asparagus II (b)	15.1	22.2	+7.1
Asparagus II (c)	13.7	12.0	−1.7
Green Beans I	0.8	8.8	+8.0
Green Beans II	12.0	13.8	+1.8
Green Beans III	3.7	8.8	+5.1
Cabbage I	37.3	46.3	+9.0
Cabbage II	31.7	32.8	+1.1
Carrots I	14.8	20.8	+6.0
Carrots II	14.7	17.9	+3.2
Peas I	18.4	25.3	+6.9
Peas II	19.0	27.3	+8.0
Potatoes I	37.8	11.1	−26.7
Potatoes II	35.1	18.9	−16.2
Potatoes III	34.4	32.8	−1.6
Potatoes IV	15.7	3.9	−11.8
Potatoes V	21.3	19.7	−1.6
Potatoes VI	30.0	30.0	0.0
Turnips I	23.1	19.7	−3.4
Turnips II	19.7	23.8	+4.1
Average for all the vegetables	19.90	19.44	

Considerable variation in the percentage of composition (including calcium content) of different lots of the same vegetable is to be expected (10, 31, 32, 33, 34), and the data in table 1 agree with the findings of others in this respect.

As shown in table 2, the average loss of calcium for all the vegetables cooked in unsalted water was 19.90 per cent, in salted water 19.44 per cent—a difference too slight to be considered significant in view of the wide variation in the values included in the averages.

From the data obtained in this study it would seem that no conclusions applying to vegetables in general can be drawn concerning the effect of salt in the cooking water upon the loss of calcium when the vegetables are cooked under conditions approximating household practice. The results suggest the desirability of further study of a large number of samples of each kind of vegetable, with consideration also given to the degree of maturity of the vegetable, the period of storage, the pH of the vegetable juices, and factors affecting cell permeability.

Summary. The calcium content of 7 different vegetables was determined after treatment as follows: (1) left uncooked; (2) cooked in distilled water; (3) cooked in distilled water to which chemically pure sodium chloride was added. The preparation of the vegetable, proportion of salt used in the cooking water, and the length of the cooking period corresponded to recommended household practice.

Under the conditions of this study, the differences in the calcium content of similar lots cooked in salted and unsalted water were found to be statistically significant only in the case of one lot of cabbage, two lots of peas, two lots of potatoes, and one

lot of turnips; and even in these there is some doubt. In all other cases the differences were not significant.

The results seem to indicate that until more extensive data are obtained, no conclusions can be drawn as to the effect of salt in the cooking water upon the loss of calcium of vegetables in general, and suggest the desirability of further study upon each vegetable.

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PRACTICAL SIGNIFICANCE OF RESULTS

Since calcium is one of the valuable mineral substances supplied by certain vegetables, it is of interest to know how it is affected by different methods of cooking. The results of this study seem to indicate that under household conditions of preparation, the calcium in such vegetables as asparagus, green beans, cabbage, carrots, peas, potatoes, and turnips is practically the same whether they are cooked with or without salt added to the cooking water.

BOOKS AND PERIODICALS

NEW BOOKS

Advertising Reconsidered. By A. S. J. BASTER. London: P. S. King & Son, Ltd., 1935, 128 pp., 5s.

"An appraisal of modern advertising, suggestive rather than exhaustive, by a disinterested student who has had unavoidable personal experience of it in the United States and Europe" and who is lecturer in economics at University College, Exeter. He concludes that "Some sort of advertising—of information service to consumers—is clearly absolutely essential in any exchange economy. But in practice, the truth alone is not commonly selected as a medium for advertising. Blatant deception admittedly cannot often be successful in the long run; but the manipulation of consumers' choice by non-informative advertisements can apparently be carried to indefinite lengths. To the wastes of obvious deception therefore must be added the wastes of turning the economic machine over to making things people are fraudulently persuaded to want rather than things they really do want. In the course of this conversion process, the business man discovers that some commodities are relatively easy to advertise and others very difficult, and, in consequence, more of the first sort are made than the second. . . . Thus the productive process becomes distorted. It suffers still further derangement because advertising, when it contains something besides the truth, breeds fierce competition, and involves producers in a struggle to build up monopolies against one another. . . . Is this the lowest price at which the community can purchase the vaunted benefits of advertising? If so, are they not too dearly bought?" He also feels that prospects of adequate reforms from within are not encouraging, nor the likelihood of success through governmental "planned control" of production and advertising, and that the only hope lies in the education of the consumer to understand the mechanics of the economic process and so to awaken in him "a deeper consciousness of the ultimate power that lies in his hands to mould this process."

Radio and Education. Proceedings of the Fourth Annual Assembly of the National Advisory Council on Radio in Education, Inc., 1934. Edited by LEVERING TYSON. Chicago: The University of Chicago Press, 1935, 266 pp., $3.

The speeches, discussions, and reports here assembled give a vivid, informal picture of the wider trends and present status of radio as a means of education. The discussions on government control of broadcasting and on means of improving broadcasting in the United States bring together a stimulating variety of opinions, while the reports of Dr. Tyson, director of the Council, and of its special committees tell of specific activities, including radio programs in various fields and using various methods of presentation. Listeners to the "University of Chicago Round Table" will be interested in the description of the way by which its speakers prepare for their unwritten, unusually spontaneous discussions.

The Education of Teachers. Yearbook XXIII of the National Society of College Teachers of Education. General editor, FOWLER D. BROOKS. Chicago: The University of Chicago Press, 1935, 266 pp., $1.50.

Having been asked to criticize the findings of the National Survey of the Education of Teachers and thus to make them more widely known and used, the committee responsible for this yearbook discusses at considerable length four fundamental phases of the Survey and also sets forth a body of principles which it considers "basic to a constructive program in these areas." The phases and the authors of the sections

devoted to them are: "Selective Admission and Promotion," Frank E. Baker; "Curriculum Content and Pattern," W. S. Gray, Florence B. Stratemeyer, Thomas Alexander; "Directed Teaching," Raleigh Schorling; "Teacher Demand, Supply and Certification," A. F. Myers.

Social Change and Education, Thirteenth Yearbook of the Department of Superintendence. Washington, D. C.: The Department of Superintendence, National Education Association, 1935, 383 pp., $2.

This yearbook was prepared for the Department by the Commission on Education for New Social and Economic Relationships, John W. Studebaker, chairman, and attempts to present "a comprehensive review of the major social and economic problems affecting education." Besides the 15 chapters in which individual contributors discuss special phases of the subject, the book also includes the official records of the Department for the year 1934–35.

Modern Motherhood. By CLAUDE EDWIN HEATON. New York: Farrar & Rinehart, Inc., 1935, 271 pp., $2.

A straightforward, sensible, simple presentation of "information on complete maternity care—prenatal, delivery, aftercare" written for the layman and including several topics heretofore unusual in such books; for example, biological tests for pregnancy, child spacing, and means of obtaining adequate care.

Nutrition and Physical Fitness. By L. JEAN BOGERT. *Second Edition.* Philadelphia: W. B. Saunders Company, 1935, 566 pp., $3.

The changes made in this revision of a book whose first edition was reviewed in January 1932 are those necessary to bring the statements in line with the rapidly-increasing body of scientific information.

The Formation of Capital. By HAROLD G. MOULTON. Washington, D. C.: The Brookings Institution, 1935, 207 pp., $2.50.

Following *America's Capacity to Produce* and *America's Capacity to Consume* (see JOURNAL, January page 50) this third Brookings Institution study of national wealth and income in relation to economic progress is described as seeking to analyze "the factors involved in transforming money savings into capital equipment. It challenges traditional conceptions as to the forces which govern the growth of productive capital; demonstrates the dependence of capital expansion upon consumptive demand; and discloses how excessive savings may produce financial disorder rather than new capital goods."

Health Dentistry for the Community. By the COMMITTEE ON COMMUNITY DENTAL SERVICE, New York Tuberculosis and Health Association. Chicago: The University of Chicago Press, 1935, 85 pp., $1.

The outcome of a study made to determine the actual and desirable place of dentistry in a general health service, and the most efficient means of providing the latter. There are chapters on dentistry for children and for adults and on the trend toward socialization, the latter with descriptions of specific proposals. Statistics regarding costs and conditions are given in the appendix.

The Agricultural Fair. By WAYNE CALDWELL NEELY. New York: Columbia University Press, 1935, 313 pp., $3.75.

Extension workers and teachers whose pupils exhibit at agricultural fairs will welcome this readable discussion of their development from medieval markets to the carefully organized types seen in the United States today and of their educational, recreational, and socializing functions.

Learning to Be Likable. By GARRY CLEVELAND MYERS. Station B, Columbus, Ohio: School and College Service, 1935, 128 pp., $0.40.

This "brief discussion of important personal problems" is written from the point of view of the adolescent boy and girl but should also be suggestive to their parents and teachers. A list of 70 leading questions for class or home discussion is included.

ABSTRACTS

EDUCATION

Contributed by the Home Economics Education Service, United States Office of Education

ELEMENTARY AND SECONDARY SCHOOLS

Training for home and family life, RUA VAN HORN. *Calif. J. Secondary Educ.* **10,** No. 2 (1935, Jan.) pp. 120–121.

The general trend of a panel discussion on "What Should Be Offered in the Secondary School Curriculum as Training for Home and Family Life?" indicated that homemaking should be but is not now a profession, though there is definite attempt on the part of certain groups to provide training that will ultimately result in a professional understanding of the home.—S. M. B.

Recreation and juvenile delinquency, KATHERINE F. LENROOT. *Educ. Method* **14,** No. 6 (1935, March) pp. 296–299.

Evidence is given that there is a direct relation between juvenile delinquency and lack of opportunities for satisfying human relationships and for adventure and achievement in socially acceptable channels. The need is indicated for community-wide programs for the development of wholesome interests, activities, and attitudes on the part of boys and girls as a hopeful and challenging task in the realm of social planning.—S. M. B.

The school and tomorrow's homemakers, ANNIE LOUISE MACLEOD. *N. Y. State Educ.* **12,** No. 6 (1935, March) pp. 439–440+.

The growing realization of the economic and social rôle of the home is resulting in an increase in the number of school home economics departments. Tax-paying citizens are looking not only at the effect of home economics training on the girl today, but anticipating improved home life tomorrow because she has had this training.—S. M. B.

Community cooperation, MARION S. VAN LIEW. *N. Y. State Educ.* **12,** No. 6 (1935, March) pp. 449, 450, 496.

The plan of organizing and using for the homemaking department an advisory committee of homemakers is presented as a step toward the ideal of having the homemaking department in the school the counseling center for the homemaking problems of the community.—S. M. B.

The school lunch, MARION S. VAN LIEW. *N. Y. State Educ.* **22,** No. 7 (1935, April) pp. 534, 586–589.

Since the feeding of children at noon is fast becoming an integral part of every school organization and its inception recognized as a mighty factor in childhood education, the provision of a hot dish for all children who do not go home at noon is set up as a goal for school lunch directors. Three means of exchange for the hot dish are suggested, and details of equipment and cooperation are offered.—S. M. B.

Boys and girls on the march, THOMAS MINEHAN. *Parents' Mag.* (1935, March) pp. 14–15+.

Interviews with boys and girls "traveling around," the vagrants, of that class of homeless and destitute youth becoming such a problem in this country. Poverty, self-sacrifice, insecurity—many times due to emotional crises, thwarted desires and ambitions, love of adventure, and need for self-expression—are seen as dominating motives for leaving home, while suggestions for preventing their leaving are offered.—S. M. B.

A school's counseling services, VIRGINIA SOMES SANDERSON. *Progressive Educ.* **12,** No. 2 (1935, Feb.) pp. 110–113.

A discussion of the responsibility of the school in relation to individual, group, and parent counseling. Successful counseling service, which is taking an increasingly important part in the programs of progressive secondary schools, is dependent on the choice of wise counselors or counseling committees. Emo-

tional problems, family conflicts, and decisions concerning the future are difficult to deal with at best, and in the hands of well-meaning but ill-equipped persons may be dangerous.—S. M. B.

Exploring the panel method scientifically, J. ORIN POWERS and FLORENCE MASSEY BLACK. *Progressive Educ.* **12,** No. 2 (1935, Feb.) pp. 85–88.

An interpretation of an experiment with the panel technic in seventh grade social studies. This technic was found to be a new and stimulating tool, interesting to the students, usable only when objectives were clearly defined, producing better results—when measured by teacher-made objective tests—than other methods with which it was compared.—S. M. B.

Developing a social studies philosophy, WILL FRENCH. *Progressive Educ.* **12,** No. 4 (1935, April) pp. 233–238.

The report of an attempt to cross the great divide between a social studies program written in terms of individualism and laissez-faire and one written more in harmony with the social and economic possibilities with which democracy and technology endow us.—S. M. B.

Education and the "forgotten man," KATE W. KINYON. *Progressive Educ.* **12,** No. 4 (1935, April) pp. 248–250.

Stresses the part played by the high school in making students consumer conscious and the need for cooperation between the science, home economics, commercial, and social science departments if permanent improvement is expected in the methods of consumer buying used by secondary school students.—S. M. B.

Psychology for high school students? ROYCE S. PITKIN. *Progressive Educ.* **12,** No. 4 (1935, April) pp. 251–253.

Psychology is suggested as a subject which offers innumerable opportunities for making the schoolroom a laboratory of life. Comprehension of this subject should lead to a more intelligent understanding of human life and the ability to govern conduct through the development of critical yet tolerant attitudes.—S. M. B.

The use of personality ratings in character education, FRANK P. WHITNEY. *School Rev.* **43,** No. 2 (1935, Feb.) pp. 104–111.

The personality rating scheme here described was found to be a highly important part of a program of character education which emphasized participation and cooperation as unescapable parts of the school life. The main value of the rating device appeared to lie in the fact that it is a constant reminder to teachers of the need for diagnosing weaknesses, for formulating plans for improvement, and for providing practice in the traits desired.—S. M. B.

The home project plan at its best, EDITORIAL. *School Rev.* **43,** No. 4 (1935, April) pp. 243–246.

Report of a home project in vocational agriculture which recommends this method of teaching as one of the best means of combining theory and practice, securing participation by pupils in the life outside of the school, and bringing school and community together. Through the project a farm boy came into his own; learned the value of a dollar, the value of quantitative thinking, something of transportation, much of precision; and developed confidence in his own abilities.—S. M. B.

GENERAL

The problem of out-of-school farm youth, D. M. CLEMENTS. *Agricultural Educ.* **7,** No. 8 (1935, Feb.) pp. 125, 128.

A plea for a sounder program for 18- to 25-year-old farm youth which gives opportunity to men and women together in vocational adjustment and planning; family anticipation, home planning, and mate selection; personality development and opportunity for self-expression; adaptation to the life of the community and the state.—B. I. C.

The practicing psychologist in the educational system, R. B. CATTELL. *Human Factor,* **9,** No. 2 (1935, Feb.) pp. 54–62.

The main tasks of the practicing psychologist are listed as (1) psycho-therapeutic work on neurotic and delinquent children, (2) measurement of mental capacity and ability, (3)

designing schemes of vocational guidance, (4) educating parents and teachers in matters of child psychology, and (5) educational consulting. Most effective service is possible only if the psychologist is an integral part of the educational system.—S. M. B.

The saving skills, DOROTHY CANFIELD FISHER. *J. Adult Educ.* **7,** No. 2 (1935, April) pp. 142–146.

The author, who believes that the acquisition and practice of a skill is a condition for the survival of a race and its most enduring and substantial pleasure and joy, sees in the adult phases of the Federal Emergency Education program an opportunity for substituting in the place of the older skills which necessity forced upon humanity and which labor-saving machinery has now rendered useless, other suitable, freely chosen, spontaneously loved skills, manual, bodily, or intellectual.—S. M. B.

New morals for old, ARTHUR L. SWIFT. *Parents' Mag.* (1935, Feb.) pp. 15, 72–75.

The parents' part in understanding and guiding youth in the search for socially acceptable ways of satisfying his desires. Through an appreciation of standards of modern life and the demands of society upon young people it should be possible for parents to give children a sense of moral security and stability, a central core around which to build character without denying them the opportunity for intelligent self-direction.—S. M. B.

What a high I. Q. means, WINIFRED BAIN. *Parents' Mag.* (1935, Feb.) pp. 30, 57–60.

Assurance is given parents that there is no more cause for emotionality about variations in height and breadth of intelligence than about physical height and weight. Emphasis is placed on training children to use to the fullest the capacities which they have and on the fact that intelligence tests may be of valuable assistance in this process.—S. M. B.

An adventure in education, PHILIP L. BOARDMAN. *Progressive Educ.* **12,** No. 2. (1935, Feb.) pp. 75–84.

An autobiographical essay of Sir Patrick Geddes, the apostle who taught by his own life that learning comes only through complete living. His versatility led him to become biologist, sociologist, philosopher, playwright, and pioneer in civic planning. His belief that "life itself is the only justification for any study" led him to take all knowledge for his province in order to harness it to life.—S. M. B.

Satisfaction: its source and function in learning, H. B. WYMAN. *Progressive Educ.* **12,** No. 4 (1935, April) pp. 224–229.

Since one of the major objectives of any system of education should be that of enabling the student to evolve an adequate philosophy of life, the "laws of learning" tend to interfere with and to stifle this vital phase of education because they fail to supply satisfactory goals. All conduct, all situations, must be viewed in terms of their relationship to the dominating goals of the individual's life.—S. M. B.

New duties of parents and schools, ERNEST G. OSBORNE. *Progressive Educ.* **12,** No. 4, (1935, April) pp. 270–274.

Tasks that parents and schools together must face if education is to function effectively in an ever-changing society are: breaking down the "closed shop" attitudes of teachers and opening the school to all the adults concerned with the child; and thinking through together the educational processes in terms of those experiences making for sound emotional and social development. Only through participation can we hope to develop an education that changes people significantly, that can in any way direct social changes.—S. M. B.

Mental hygiene education and its value, CLARENCE M. HINCKS. *Pub. Health Nursing* **27,** No. 3 (1935, March) pp. 133–135.

The value of the mental hygiene point of view for workers and leaders in the fields of social work, health, education, and religion is outlined; and seven objectives are suggested that will aid in developing a diagnostic approach to all human problems, foster community arrangements that abet mental health, and eliminate conditions that tend to develop maladjustments.—S. M. B.

FOOD ECONOMICS AND DIETARY REQUIREMENTS

Contributed by the staff of the Food Economics Section, Bureau of Home Economics, United States Department of Agriculture

Human requirements for vitamins. Report of Committee on Nutritional Problems, American Public Health Association Yearbook 1934–35. Supplement to *Am. J. Publ. Health* **25,** No. 2 (1935, Feb.) pp. [69]–72.

The committee calls attention to the fact that a statement of the human requirements for vitamins cannot be satisfactorily given because of the paucity of clinical evidence on which human requirements are based. A great handicap in clinical studies is the lack of generally accepted criteria of the deficiency of any one of the vitamins that may be considerably less severe than necessary to produce well-defined symptoms. Hence any statement with reference to the minimum requirements to prevent clinical disorders must be made with the reservation that larger intakes may be desirable or even necessary for protection against the less well-defined symptoms of deficiency. Values for minimum requirements for each of the vitamins should not be used in recommending specific dietaries. Evidence is presented which would suggest that the minimum requirements of vitamin A of an infant are about 1,500 International units (1,070 Sherman units). The requirements of a larger child and adult are greater, but how much can only be postulated. As regards requirements of vitamin B there is probably a gradual increase with increasing body size from infancy through the period of adolescence from 50 to 200 International units. Of vitamin C the requirement from infancy to adulthood probably increases from about 100 to about 300 International units. When cod-liver oil is used as the source of vitamin D, the minimum protective dose against rickets in an infant seems to be from about 700 to about 1,100 International units. Since the amount of vitamin D in the form of cod-liver oil which will just prevent rickets in an infant will vary depending on environmental and hereditary factors, a more accurate safe minimum may result from more extensive clinical investigations. On the basis of the work of the U. S. Public Health Service, it is stated that about 30 grams of dried yeast daily is probably the smallest amount which will provide enough of the pellagra-preventing factors to protect an adult. Reference is made to a recent compilation by Sebrell (Public Health Reports **49,** 754, 1934) of the pellagra-preventing value of all foods that have been thoroughly tested. The committee concludes that the limited knowledge at hand on vitamin requirements is sufficient to protect us from serious deficiencies but not to permit the most economical utilization of our food sources with full assurance of development and maintenance of bodies having maximum capacity for physical and mental activity.

The food supply of Paris, 1930–33, M. ROELAND and C. RICHET, JR. *Bull. de la Soc. Sci. d'Hygiene Alimentaire* **22,** Nos. 7 and 8 (1934) pp. [175]–215.

Following a brief discussion of the source material, tables are presented giving approximate consumption in Paris of principal articles of food in 1930 and 1932. The degree of reliability of the data is indicated. Including the inevitable waste, the net disappearance of food was such as to provide for every man, woman, and child 3,100 calories and 106 gm. protein daily. It is estimated that about 30 per cent of the calories were derived from grain products; 18 per cent from milk, cheese, and butter; 10 per cent from alcoholic beverages; 5 per cent each from potatoes and sugar; 9 per cent from meat, sea food, and fats (except butter); 4 per cent from dried legumes; and about 19 per cent from other items. About 14 per cent of the calories were derived from protein and over half of the protein came from animal sources. Fat furnished about 25 per cent of the calories, alcohol 11, and carbohydrates, 50 per cent. Between the period 1890–1900 and 1930 there was a decrease in the consumption of carbohydrate and an increase in the consumption of fat. The consumption of grain products, meat, and succulent vegetables decreased markedly, whereas the consumption of milk and cheese,

of butter and other fats, of potatoes, and of fruits greatly increased. The consumption of eggs and alcoholic beverages decreased slightly and that of fish and sugar showed a slight increase.

Food budgets, M. HINDHEDE. *Hippokrates* [Germany] **6,** No. 2 (1934) pp. 36–45.

Fourteen sets of figures are presented on food budgets or food consumption data, 4 from England, 5 from the United States, and 5 from Denmark. They allow comparison of the quantity of different types of food included daily, their calorie value, protein content, and the proportion of protein from animal sources. Vital statistics presented for consideration in connection with the level of protein consumption are believed to indicate that the death rate from disorders of organs concerned with digestion, circulation, and excretion are related to the level of protein consumption. The remarkable reduction in the death rate from these causes during the blockade of Denmark in 1918 is attributed in part to reduced alcohol consumption and in part to an enforced dietary regime. Hindhede advocates diets low in protein but including plenty of whole-grain products, milk, fruits, and vegetables.

Quantitative aspects of vitamin requirement, W. T. SALTER. *J. Am. Dietetic Assoc'n* **10,** No. 4 (1934, Nov.) pp. 296–308.

After discussing the effect of diet, disease, and unusual conditions upon "normal" vitamin requirement, the author emphasizes the need for methods by which border-line conditions of vitamin deficiency may be discovered. He points out the variations in the vitamin content of the diet which may come about in the treatment food receives in its preparation. The "guess" which he hazards as to minimal average daily vitamin requirements of man are: 0.3 mg. carotin, 0.5 mg. vitamin B, 35 mg. ascorbic acid, and 0.05 mg. irradiated ergosterol.

Food consumption of preschool children, M. BRAY, J. E. HAWKS, and M. DYE. *J. Am. Dietetic Assoc'n* **10,** No. 4 (1934, Nov.) pp. 309–316.

The total food intake of 8 boys and 12 girls, aged between 33 and 61 months, was weighed over a period of 3 or 4 days at different times in the year. The calorie value and protein, calcium, and phosphorus content of the diets were determined. For age groups 30 to 41 months, 42 to 53 months, and 54 to 65 months, the daily calorie intakes were 1,260, 1,440, and 1,526 respectively; the protein, 39.0, 48.1, and 48.4 grams; the calcium, 0.917, 1.210, and 1.010 grams; and the phosphorus, 0.886, 1.070, and 0.977 grams respectively. On the average, 32 per cent of the calories were derived from milk; 8.3 from eggs, cheese, and meat; 15.7 from vegetables and fruit; 17.3 from grain products; 7.4 from sugar and candy; and 19.2 from fats.

A study of the protein needs of preschool children, A. L. DANIELS, M. K. HUTTON, E. M. KNOTT, O. E. WRIGHT, G. J. EVERSON, and F. SCOULAR. *J. Nut.* **9,** No. 1 (1935, Jan. 10) pp. 91–107.

One hundred and twenty-one nitrogen balance studies were made with 24 normal children (15 boys and 9 girls) between 37 and 66 months of age. With but few exceptions, the food supplied 40 calories per inch of body height (80 to 112 calories per pound of body weight) and furnished 0.9 to 1.6 grams of protein per pound. Nitrogen retention was studied in relation to actual and theoretical weight and in relation to creatinine elimination as a measure of muscle needs. Interpreting the data for creatinine elimination in terms of the theoretical weights of the children studied, it is concluded that children of the ages considered need about 3.2 grams of protein (N x 6.25) per kilogram or 1.5 grams of protein per pound in diets furnishing at least 50 per cent of the protein from animal sources.

H. K. S.

THE HOUSE, ITS EQUIPMENT AND MANAGEMENT

New things in household equipment, EVELYN H. ROBERTS. *Agr. Eng.* **16,** No. 2 (1935, Feb.) p. 73.

The American Society of Agricultural Engineers' committee on electric equipment for the farm home reviews recent developments in household equipment suitable for farm homes, notably the new type heat-storage coal-range, heavily insulated and 80 per cent efficient, and experiments in heating houses electrically as conducted in a Washington contractor's camp. There adequately insulated, prefabricated, 3- and 4-room houses are heated with radiant electric units at an annual cost for heating, lighting, and cooking of between $60 and $75.

F.H.A. property standards, F. L. SMITH. *Am. Architecture* **146,** No. 2629 (1935, Jan.) pp. 34–36.

The Federal Housing Administration has set up standards to which all real estate offered as security for insurable mortgage loans must conform. These cover type of neighborhood, land coverage, minimum size, and ventilation for dwellings, the architectural character, construction, services, and equipment, and are expected to increase public consciousness of the need for higher housing standards.

Housing as a new influence in architecture. *Architectural Record* **77,** No. 3 (1935, March).

How the P.W.A. housing division functions, H. B. HACKETT, pp. 148–152.

Sample plans prepared by housing division, P.W.A., for low-rent housing projects, pp. 153–168.

Technical news and research:

1. Apartment house planning requirements, including basic dimensions, pp. 169–181.
2. Standards for low-rent housing, pp. 182–184.

Standards for residential construction—control through mortgage insurance, pp. 185–192.

Valuable information covering the proposals for housing development under the Public Works Administration and the Federal Housing Administration.

Why is the small house small? HARRISON GILL. *Architecture* **71,** No. 3 (1935, March) pp. 141–144.

The cost of building keeps houses small, but the resourceful architect can reduce costs by wise selection and utilization of inexpensive materials or methods of construction, many of which are suggested here.

New prefabricated home. *Bus. Week*, No. 288 (1935, March 9) p. 10.

Haskelite Manufacturing Corporation has a prefabricated building panel, Phemaloid, made of wood cross-laminated for strength and bound together under heat and great pressure with a synthetic resin to a strong homogeneous substance resistant to mold, fungi, and vermin, which comes in standardized units admirably adapted to any type of design. A 5-room house uses 3½ tons of steel and can be erected by any carpenter at a cost 25 per cent less than a good wood residence.

Canada's high domestic consumption, W. M. CARPENDER. *Edison Elec. Inst. Bull.* **3,** No. 1 (1935, Jan.) pp. 5–8.

The high average annual use of electricity per customer in Canada (1208 kw. hr.) is held to be largely due to the availability of cheap power from Niagra Falls in limited areas where other fuels are scarce and expensive. Even in these areas the high average results from the consumption of 12,000 to 24,000 kw. hr. per year by about 10 per cent of the customers, among whom a heavy cooking and heating load has been developed. The small income families use little current, and rate reductions have not stimulated them to increase their consumption.

The economics of kettle boiling, F. S. NAYLOR and C. BACON. *Elec. Rev.* **116,** No. 2987 (1935, Feb. 22) p. 268.

Tests of time and current required for boiling 3 pints of water in an electric kettle (heat insulated feet and immersion-heater type element), an aluminum kettle on a dull plate, a black kettle on a bright plate, and a black kettle on a

dull plate showed the unquestionable superiority of the electric kettle, which would pay for itself in saving in current in from one to two years depending upon the electric rate. Little difference was shown between the two other kettles, though the black kettle was more efficient on the bright plate than on the dull.

Unit house construction program built around electric service. *Elec. World* **104,** No. 17 (1934, Dec. 22) p. 1173.

Houses, Inc., has had on private view a house built around a central service unit in which the plumbing and wiring necessary for house heating, water heating, air conditioning, built-in radio, electric clock, and other service features are concentrated. The rooms are arranged around this unit, with short wiring connections. All plumbing connects to a single unit of piping. No cellar is needed; one or two stories are possible; and rooms may be added easily and cheaply. The frame is steel; the exterior, two asbestos compound sheets with insulation between. Side wall sections are bound together with aluminum strips; walls, floors, and ceilings are a mineral compound. A minimum of living room, 2 bedrooms, bath, kitchen complete with electric range, refrigeration, and air conditioning will sell for about $3,900 erected on the buyer's lot. It can be paid for over 15 years and carries fire and life insurance free. It will be trucked to the lot and erected in 14 days, the erectors in the mean time living in the truck. Twelve floor plans are now possible. Power companies have ordered a large number for erection in their residence communities.

Prefabricated houses. Will they dynamite the building jam? H. F. MERRILL. *Forbes* **35,** No. 6 (1935, March 15) pp. 10–12, 42.

Major difficulties in the path of immediate acceptance of prefabricated houses are: (1) their "different" appearance; (2) existing building codes set up for wood, brick, etc., which are not applicable to the new types but may not easily be changed; (3) possible opposition by labor because of probable loss of work; (4) difficulty in financing the purchase of untried design; (5) problems of distribution; and (6) limited demand for products which depend upon mass production for low price. These factors may bring about a gradual rather than immediate acceptance of the modern flat-roofed prefabricated house.

New approval policies enhance significance of A.G.A. seal. *Gas Age-Record* **74,** No. 24 (1934, Dec. 15) pp. 521–525.

To make sure that all approved gas appliances are periodically brought up to date to meet the latest standards for safety, construction, and performance, the American Gas Association will require that appliances previously approved be made to comply with improved standards within a limited time after the adoption of the latter.

Developments in the electrical industry during 1934, JOHN LISTON. *Gen'l Elec. Rev.* **38,** No. 1 (1935, Jan.) pp. 5–62.

Household equipment described includes a highly sensitive thermostat for flatirons with an adjustable temperature range from 250°F. to 550°F., a temperature control switch for water heaters, new and improved refrigerators, room air conditioners, cooling units, gas furnaces, lightning arresters, new lamp bulbs, and table lamps.

Introducing the pre-fabricated house, J. F. HIGGINS. *House & Garden* **67,** No. 3 (1935, March) pp. 36–37, 76.

Description, with drawings and plans, of two of the series of six prefabricated houses now cataloged and available. They are built with a steel frame and have cement-asbestos wall sections, are durable, fireproof, termite proof, and insulated. No cellar is required, though a continuous concrete foundation and a three-foot air space extends beneath the first floor. A "moto-unit" which contains all plumbing, heating, and mechanical devices makes one complete wall of the kitchen. Built into it are the electric refrigerator, sink, dishwasher, and either gas or electric range, and in the larger houses a clothes washer. Sizes available are from 3 rooms, kitchen, and bath to 9 rooms, kitchen, and 2 baths. Prices, erected complete, range from $3,800 to $9,900, with a 15-year financing plan, including fire and life insurance.

What you should know about heating systems, G. ERNST. *House & Garden* **67,** No. 4 (1935, April) pp. 40, 86, 88.

A simple but comprehensive survey of warm air, steam, vapor, vapor-vacuum, one-pipe vacuum, hot water and one-floor heating systems, together with their costs, types of equipment, fuels, and electrical requirements.

Prospects for domestic electrification, R. B. MATTHEWS. *J. Inst. Elec. Eng.* [London] **76,** No. 457 (1935, Jan.) pp. 17–25.

Many problems on transmission and distribution of electricity challenge the engineer which when solved will bring about great reductions in costs and the realization of the enormous possibilities of increased consumption of electricity in both urban and rural areas. Data suggesting these possibilities, examples of what might be done to reduce the cost of overhead lines, and descriptions of thermal storage cookers and water heaters as rural load builders are given.

Transmission of ultraviolet radiation through Chinese window papers, CH'EN SHANG-YI, MENG CHAO-YING, and W. BAND. *J. Opt. Soc. Am.* **25,** No. 3 (1935, March) pp. 67–70.

Total transmission of visible light ranges from 38 to 72 per cent and of ultraviolet from 16 to 41 per cent in the 12 kinds of Chinese window papers studied. Oiling with vegetable oils increased transmission by 50 per cent, narrowed the distribution curve, and strengthened the paper against moisture. Use of these inexpensive papers in tuberculosis clinics in place of ultraviolet glass is suggested.

A primer of electricity and heat, MERNA M. MONROE. *Me. Agr. Exp't Sta. Bull.* 376 (1934, Nov.) 42 pp.

A simple, clear, and comprehensive discussion of the nature of electrical energy, its transportation into and out from the home, its conversion into heat where needed, and the transfer of that heat for efficient use in cooking.

A study of factors of economy in electrical cooking of a typical day's meals in Maine, LOLIE SMITH. *Me. Agr. Exp't Sta. Bull.* 371 (1934, July) 54 pp.

Since the more general use of electricity for cooking would decrease household labor and the time required for supervision, increase kitchen comfort in summer, and give better control over cooking processes, this study was undertaken to develop more efficient methods for its use and thereby reduce the cost of operation of electric cooking equipment. The many conclusions drawn are summarized.

Actual cost of electricity to U. S. residences, W. M. PERSONS. *Pub. Service Mag.* **58,** No. 3 (1935, March) pp. 75–77.

"Comprehensive study of actual bills in comparable municipal and private plants shows that, allowing for taxes, municipal plant costs are materially higher than average private plant costs; care [was] exerted to make study wide enough to cover actual conditions and avoid special selection."

The houses we live in, HAVEN EMERSON. *Sci. Am.* **152,** No. 3 (1935, March) pp. 140–141.

Pointing out the close relationship between unsuitable housing and disease, the author holds that every house in America should be weatherproof and insulated, with dry and easily cleanable interior surfaces, have at least one room per person, plenty of sunlight, cross ventilation, water supply and sewage, and fireproof construction.

Information concerning architectural planning and estimating for project buildings. *U. S. Dep't Interior, Div. Subsistence Homesteads Bull.* 5.

A multigraphed bulletin of general information including the division's policies with regard to the houses and the drawings of them required, written for the benefit of architects who expect to submit plans and working drawings for subsistence homesteads projects.

NUTRITION RESEARCH

Contributed by the staff of the Foods and Nutrition Division, Bureau of Home Economics, United States Department of Agriculture

Iodine content of American cod liver oil, A. D. HOLMES and R. E. REMINGTON. *Am. J. Diseases Children* **49**, No. 1 (1935, Jan.) pp. 94–100.

Several investigators have reported cod-liver oil as containing significantly greater quantities of iodine than commonly used food materials. The authors considered it important to make analyses of samples of American cod-liver oils. Their analyses showed that the iodine content of 20 representative samples ranged from 3,590 to 14,940 parts per billion parts of cod-liver oil, the average being 8,460 ± 530. Oils produced in the vicinity of Nova Scotia, Gaspé Peninsula, and Newfoundland contained more iodine than those from Maine, Massachusetts, or a region in which deep-sea fish were available. A daily dose of 10 cc. of these oils if completely assimilated would largely supply the iodine needed by the average human adult.—M. H. K.

The nutritional aspects of milk pasteurization, E. V. MCCOLLUM. *Am. J. Pub. Health* **24**, No. 9 (1934, Sept.) pp. 956–958.

Clinical evidence has disproved the theory that raw milk is superior to pasteurized milk in infant feeding. Experience has shown that pasteurized milk, milk powder, and evaporated milk are essentially the equivalents of raw milk in nutrition. The growing practice among pediatricians of prescribing boiled milk and evaporated milk for infants is giving satisfactory results. The safety factor afforded by heated milk in lessening the incidence of intestinal troubles and contagious diseases is sufficient justification for the widespread use of pasteurized milk in preference to raw.—M. H. K.

The excretion of vitamin C in human urine and its dependence on the dietary intake, L. J. HARRIS, S. N. RAY, and A. WARD. *Biochem. J.* **27**, No. 6 (1933) pp. 2011–2015.

The vitamin C content of human urine was determined by the titration method. The amount of vitamin C excreted daily remained remarkably constant and was slightly more than the minimum daily requirement. This phenomenon was observed even when the subject had been on a vitamin C free diet for a week or more. When a very large single dose of vitamin C was taken the vitamin C content of the urine rose rapidly, reaching a peak about three hours after administration. Then it gradually decreased and returned to the normal level a day or so later.—M. H. K.

Origin of vitamin D in cod-liver oil; vitamin D content of zooplankton, ALICE M. COPPING. *Biochem. J.* **28**, No. 4 (1934) pp. 1516–1520.

Search for the ultimate source of vitamin D found so abundantly in the liver of the cod has led to a study of the vitamin D content of zooplankton, small crustacea on which the cod feeds. Mixed zooplankton, mostly small copepods, were used in the present experiment. Feeding tests showed no difference in the potency of the copepod stored in the dried condition and that stored in cottonseed oil. One gram daily of each produced good healing. In order to eliminate the possibility that calcification was due to the 1 per cent phosphorus present in copepods, an experiment was conducted with a low-phosphorus diet in which the degree of healing obtained was greater than could be accounted for by the phosphorus content of the copepods. Dried copepod, while not one of the richest known sources of vitamin D, contains enough to be a good source of vitamin D for the cod.—M. H. K.

A study of the iron metabolism of normal women, M. A. OHLSON and K. DAUM. *J. Nut.* **9**, No. 1 (1935, Jan. 10) pp. 75–89.

Iron balances were conducted on 3 normal women for 6 periods totaling 56 experimental days. On self-chosen diets containing liberal amounts of milk, fruits, and vegetables with adequate calories and protein, the daily intake of iron averaged 13.78 mg. Average daily excretion of iron for all periods was 14.95 mg. Milk furnished 14 to 16 per cent of the iron, meat about 35 per cent, and vegetables from 30 to 35 per cent. Negative iron balances were associated with increased fecal iron. No rela-

tionship was observed between iron retention and the iron losses of menstruation or between the balance of nitrogen or copper and the balance of iron. The loss of iron in menstrual hemorrhage during each of four periods totaled 18.17, 25.68, 32.35, and 41.90 mg., respectively.—H. K. S.

A study of the basal metabolism and diet of normal young college women in Florida, J. TILT and C. F. WALTERS. *J. Nut.* **9,** No. 1 (1935, Jan. 10) pp. 109–117.

The basal metabolism was determined for 30 normal college women from 17 to 26 years old who had lived in Florida 8 years or more. The results averaged 14.1 per cent lower than predicted by the Aub-DuBois standards, modified by Boothly and Sandiford; and 13.0 per cent below those predicted by the Harris-Benedict tables. The average values found were decidedly lower for these Florida young women than for young women of comparable ages who had recently come from northern states. No seasonal variation in basal metabolic rates was noted among the Florida women, and no consistent relationship between basal metabolism and protein or calorie intake. A 4-day dietary study showed an average daily intake on the part of 18 Florida women of 1.23 grams of protein and 39.9 calories per kilogram body weight.—H. K. S.

Human daily requirements of dietary ascorbic acid, G. GOTHLIN. *Nature* [London] **134,** No. 3389 (1934, Oct. 13) pp. 569–570.

Experiments in which the author used his previously established relation between the protective dose of antiscorbutic required by man and the amount of the same antiscorbutic necessary for the guinea pig formed the basis for an indirect method of establishing man's daily requirement of ascorbic acid. The author had shown that a man weighing 60 kg. required 14 to 20 times as much vitamin C as a guinea pig weighing ½ kg. The degree of protection afforded was based upon the microscopic alteration in the teeth of the guinea pig and the prescorbic reduction in the strength of the cutaneous capillaries in man. By feeding a group of 30 guinea pigs carefully graded doses of solutions of ascorbic acid containing from 0.4 to 6.0 mg. of the acid, it was found that 1.33 mg. was the minimum amount necessary to protect a guinea pig. Calculations based upon this value and the relation existing between the antiscorbutic requirements of the guinea pig and man show that the smallest daily dose of ascorbic acid required to protect a man weighing 60 kg. from prescorbutic changes is 19 to 27 mg. given per os.—M. H. K.

Synthesis of vitamin C by luteal tissue, G. BOURNE. *Nature* [London] **135,** No. 3404 (1935, Jan. 26) pp. 148–149.

It has been observed that pregnant female guinea pigs develop scurvy only slightly or not at all when placed on a scorbutic diet and that the fœtus is capable of synthesizing vitamin C in fairly large amounts. Question as to whether the high concentration of vitamin C known to be present in the corpus luteum is due to synthesis by the fœtus or the result of intake of vitamin C in the food led to further investigation. Three groups of guinea pigs, including respectively pregnant females, young virgins, and young virgins receiving a luteinising hormone of the anterior pituitary, were placed on a scorbutic diet. The untreated animals died of scurvy; but the treated ones, although they lost weight, showed no signs of scurvy. The pregnant guinea pigs remained about the same. The results indicate that luteal tissue is capable of synthesizing vitamin C. It is probable that the synthesis first takes place in the corpus luteum and is later taken over or supplemented by the fœtus.—M. H. K.

The nutritional anæmias of man and animals, L. S. P. DAVIDSON and I. LEITCH. *Nut. Abstracts and Rev.* **3,** No. 4 (1934, April) pp. 901–930.

Good review of the literature on anemias of different kinds discussed in relation to diet and food composition.—C. C.

TEXTILES AND CLOTHING

Contributed by the staff of the Division of Textiles and Clothing, Bureau of Home Economics, United States Department of Agriculture

Vergleichende untersuchungen über die hygenischen Eigenshaften der Kunstseide [Comparative investigations of the hygienic properties of rayon], P. HOFMANN and U. BECHER. *Arch. Hyg. u. Bakt.* **112** (1934, June) pp. 121–140.

In this study of underwear materials 5 rayons were compared with cotton, silk, wool, and linen fabrics. All were tested for air, water, and heat retention and for transmission of ultra-violet light both when new and after 5 and 10 launderings. The tricots had a greater pore volume than the woven fabrics except that one cotton fustian was high in this respect on account of the nap. Fabric structure and kind of fiber determined the capacity to hold water, which was smaller for rayon tricot than for wool or silk tricot. The force required to pull a wet fabric from the skin was less for rayon tricot than for any other material. Wool tricot was highest and silk lowest for heat retention, which was found to depend on thickness and pore volume. The structure of the cloth rather than the kind of fiber determined the transmission of ultra-violet light.—M. B. H.

Protein rayon, A. J. HALL. *Can. Textile J.* **52,** No. 1 (1935, Jan. 11) pp. 19–20.

No cellulose rayon has yet been manufactured with all of the three essential properties of real silk, that is, softness and warmth of handle, excellent resistance to creasing, and superior strength both wet and dry. Protein substances such as casein, gelatin, keratin (wool), and fibroin (silk) are available in large quantities in the form of waste. Several German and English patents have been obtained for rayons made from solutions of fibroin, of wool, and of wool and cellulose mixtures. Silk rayon from a solution of silk in ortho-phosphoric acid had a tensile strength of 1.5 gm. per dernier and an extensibility of 12 to 15 per cent, while another rayon, obtained by dissolving silk in a solution of sodium thiocyanate, had a strength of 1.6 gm. per dernier and an extensibility of 25 per cent. It should be possible to modify the properties of protein rayon by the use of synthetic proteins varying in complexity. These rayons would probably have an affinity for a wider range of dyes than cellulose rayon, and since protein substances are fairly plastic under conditions of heat and humidity they should be more adaptable to textile finishing processes.—J. D. G.

Wir wollen wieder spinnen und weben [We wish to spin and weave again], ANNEMARIE BRENKE. *Die Deutsche Frau* **27,** No. 17, Part I (1934) pp. 514–516.

Illustrations show the old spinning wheel and the loom in use. Especial attention is given to the handicrafts developed in those rural regions where the wool and flax are actually produced on the land. The hand loom is regarded as essential to the revival of the weaving handicraft. It is also maintained that the dyes from herbs, mosses, and lichens as formerly used in Germany are superior to the aniline dyes in beauty and fastness. These dye recipes were handed down in families.—K. M. D.

Silk weighting, MARION CHINN and ETHEL L. PHELPS. *Ind. & Eng. Chem.* **27,** No. 2 (1935, Feb.) pp. 209–211.

In order to investigate the manner in which tin is retained by silk, a study was made of the first step in the procedure of silk weighting, that is, the stannic chloride bath and following rinse. Solutions of stannic chloride of sp. gr. 1.0775, 1.1449, 1.2154, 1.2750, and 1.3498 were used. Weighed samples of silk were immersed in 150 cc. of each solution for one hour at a temperature of 10° to 15°C., the samples extracted and then washed until hydrolysis was complete. After air drying, each sample was dried to constant weight in a vacuum oven. The increase in weight of each sample was calculated and the amount of tin removed from the stannic chloride baths was determined both from an ashed sample and by measuring the stannic oxide present in the original and in the equilibrium solutions. The results of these determinations showed that an optimum

concentration for maximum retention of weighting on the silk was reached by a solution of 1.2750 sp. gr. For the highest concentration used (1.3498 sp. gr.) the amount of weighting retained by the silk was little greater than that observed for the lowest concentration. This decided drop, the authors state, may be due to a change in the silk itself. Since the increase in weight of the samples was found to be greater than the amount of stannic oxide contained in them, it was thought that water may have been adsorbed by the silk together with the tin salt and may have been weighed as weighting. The retention of weighting by the silk from stannic chloride solutions of lower concentrations was considered to be a positive adsorption reaction, and from solutions of higher concentrations, a negative adsorption reaction.—M. S. F.

Factors affecting the performance of hosiery on the hosiery-testing machine, HERBERT F. SCHIEFER and RICHARD S. CLEVELAND. *J. Research Nat'l Bur. Stand.* **14,** No. 1 (1935, Jan.) pp. 1–16.

Eighty-nine pairs of hosiery obtained from 13 mills made from 3-, 4-, 5-, and 7-thread silk yarn on 42 and 45 gage full-fashioned knitting machines were studied on the hosiery tester designed at the National Bureau of Standards. The "distensibility" (circumference in inches at 30 pounds load on first cycle), "elasticity" (circumference in inches at 30 pounds on the first cycle minus circumference at 10 pounds on the two-hundredth cycle), and "endurability" (number of cycles that produce a hole) are reported. The effect of laundering on stockings was found to depend largely upon the kind of finishing treatment the stockings had received. The distensibility, elasticity, and endurability decreased with dyeing and with aging of both the degummed and the dyed stockings, although the aging effect was partially eliminated by laundering. A finishing treatment of aluminum sulfate and soap was found to increase the distensibility, elasticity, and endurability of hose which without treatment had endurabilities of less than 350 cycles. The tendency to become baggy is definitely related to elasticity, and a stocking with an endurability less than 1000 cycles has less distensibility and elasticity than a stocking with endurability greater than 1000 cycles. [This study is briefly reported in a letter circular obtainable from the Textile Section of the National Bureau of Standards.]—M. B. H.

Heat retaining properties of clothing computed on a physiological basis, T. C. ANGUS. *J. Textile Inst.* **26,** No. 2 (1935, Feb.) pp. T83–T86.

An apparatus is described to simulate as nearly as possible actual conditions of temperature, contact, and air movement for clothing when in use. Measurements are made by determining the temperature drop across a cork covering on a heated zinc tank when exposed to air and when covered with the test fabric. Values for percentage insulation are reported for army cloth and gabardine alone and with linings.—M. B. H.

Quilting, ELIZABETH KING. Published by the Leisure League of America, 1934, 91 pp.

The idea of quilt making probably comes from early Egyptian handiwork or from piecing small animal skins together to make covers to sleep under at night. Directions are given for cutting original quilting patterns as well as for copying the many designs shown.—B. M. V.

Über die Einwirkung von Wärme auf die Wollfaser [The effect of heat upon the wool fiber], K. STERM and P. L. ROUETTE. *Melliand Textilberichte* **16,** No. 1 (1935, Jan.) pp. 4–6.

Wool fibers were heated over periods as great as 24 hours in a specially built apparatus which was regulated with thermostats and provided with absorption devices for drawing off the gases. Temperature, time of exposure to the heat, moisture content, and pH of the fibers were varied independently. Graphs show changes in sulfur content as well as in the percentage of ammonia produced by the heating of the wool. Even after comparatively short periods of time noticeable changes occurred for exposure at 50°C. The graphical results also show changes in thickness of the fiber as well as changes in strength for exposures at constant temperatures in the range 50°C. to 150°C. When the fibers were heated at

temperatures as low as 80°C. and later cooled in the presence of moisture they never attained their normal thickness. Loss of strength was apparent at 50°C. even after comparatively short periods of time. The rate of loss was greater in the initial part of the heating period for all temperatures recorded.—K. M. D.

Experimentelle Bestimmung des Wärmeschutzes von Kleiderstoffen [Experimental determination of the heat insulation of clothing materials], E. MÖNCH. *Melliand Textilberichte* **16**, No. 1 (1935, Jan.) pp. 24–28.

Values for the heat insulation are recorded for seven different types of material varying in weight from 174 to 679 gm. per square meter. For these determinations the cloth sample was placed around an electrically heated cylinder 40 cm. long and 8.9 cm. in diameter. Additional short cylinders at each end, which were maintained at the same temperature as the long one, insured outward passage of the heat in a radial direction. The apparatus was used in a wind channel where the velocity of the air was varied up to 8 meters per second. When the fabrics were placed around the cylinder at a distance of 1 cm. from it, wind-jacket material gave greater insulation at the higher wind velocities than winter coat material which had an air permeability 5 times as great as the first material and a weight 2.5 times as great. When batiste was placed in the air space between the cylinder and the sample to be measured, the insulation value was found to be considerably increased, particularly at the higher wind velocity.—K. M. D.

Fressen Kleidermotten Kunstseide? [Do clothes moths eat rayon?] A. HERFS. *Melliand Textilberichte* **16**, No. 1 (1935, Jan.) pp. 56–58.

Rayon is injured by moths only when it has been finished with starch, oil, and tallow-like substances. In order to eat the sizing material the moth must adhere so closely to the rayon fibers that they are damaged. Tests made upon rayon covered pillows and quilts with feather fillings show the damage to the rayon to be produced in the same way. When a filling of Eulan-treated feathers was used, the rayon covering was uninjured.—K. M. D.

Serviceability of fabrics manufactured from three grades of American upland cotton, RUTH E. ELMQUIST and MARGARET B. HAYS. *Rayon & Melliand Textile M'thly* **16**, No. 1 (1935, Jan.) pp. 18–19; No. 2 (Feb.) pp. 81–82, 91.

Changes in the physical and chemical characteristics of sheetings made from cottons selected to represent Good Middling, Middling, or Strict Good Ordinary grades, and subjected to controlled service and laundering were determined at intervals during their wear life. As measured by physical tests, the sheets from the Strict Good Ordinary cotton were weaker initially and throughout their period of wear than those made of the Middling and Good Middling cottons, the latter two of which were of the same order. Copper number and methylene blue absorption tests showed that the cellulose of the Strict Good Ordinary cotton was oxidized less during the major part of its wear life than was that of the other two cottons. All the tests indicated that sheets woven from the Strict Good Ordinary cotton were slightly more deteriorated at the end of 200 washings than were the others at the end of 225. The maximum wear occurred on all of the sheets at the section usually occupied by the shoulders. There was no change in unused sheets after storage for 3.5 years. The oxidation product formed was characterized by greatly increased affinity for methylene blue. —J. D. G.

The deterioration of silks by light of different wave-lengths, ESTHER BRUNER and MINA GOEHRING. *Textile Research* **5**, No. 5 (1935, March) pp. 231–235.

Pure-dye, lead-weighted, and tin-weighted silk fabrics were exposed to the light of an S-1 Sun Lamp. After exposure lead-weighted silks showed greater deterioration as measured by tensile strength than did pure-dye or tin-weighted silks. The greatest deterioration for all silks occurred during exposure to the entire spectrum, although the region below 3490 A° caused a greater decrease in strength than any other. Deterioration increased more rapidly as the time of exposure extended beyond 72 hours, particularly so for the lead-weighted silk.—M. B. H.

MISCELLANY

Mrs. Rorer on Dietetics. A paper on "Early Dietetics" which Mrs. Sara Tyson Rorer read at the 1934 convention of the Pennsylvania State Dietetics Association has been issued in booklet form, together with a photograph of Mrs. Rorer. Copies may be purchased at 25 cents each from Miss Dorothy I. Lenfest, American Dietetic Association, 185 North Wabash Avenue, Chicago, or Dr. Marion Bell, Temple University, Philadelphia, and proceeds will be devoted to the urgently needed pension fund which her friends are attempting to establish for this influential pioneer worker.

Low-Cost Meals. The Massachusetts Department of Public Health has issued a bulletin of simple, practical suggestions on food selection, preparation, and hygiene for the use of recipients of state aid. It is entitled "Your Guide for Buying, Preparing and Serving Good Meals at Low Cost," and with it goes a suggested list of foods to include in a week's grocery order for one person, with a blank column for inserting local prices.

Food and Health. The idea that the intelligent attention given to nutrition and food selection in the years preceding and during the present economic depression may have furnished better protection to the health of the nation than was the case in previous similar periods of underfeeding, is developed by Henry C. Sherman in "Food as a Far-Reaching Factor in Health," an article in the January issue of the *Child Health Bulletin.*

Scandinavian Recipes. Mary Margaret Shaw, now at Alabama College, Montevallo, has issued an interesting collection of Scandinavian recipes which were taken down verbatim from women living near the University of South Dakota. They occupy 18 mimeographed pages and may be purchased from the author for 15 cents.

Indian Food Preparation. Stella Young, head of the home economics department at the Charles H. Burke Indian School, is the author of a mimeographed bulletin "Slaughtering a Goat and Using It Navajo Fashion." It describes a school project in which old Indian practices and modern educational methods are skillfully blended.

Practical Fish Cookery. Agnes I. Webster and W. T. Conn are joint authors of this 32-page mimeographed bulletin issued from the Bureau of Fisheries, U. S. Department of Commerce, as Special Memo. 3215.

Household Account Book. D. A. Magruder, professor of accounting at Antioch College, has devised a "Simplified Household Budget Book," 8 x 10½ inches in size, which contains 12 pages for monthly and daily records of estimated and actual expenditures and income, along with suggestions for budgeting according to commonly accepted proportions for different income levels and blanks for annual summaries. The book is sold by Bruce Humphries, Inc., 306 Stuart Street, Boston, for 25 cents a copy.

English Salt Glaze. The remarkable collection of 18th century English salt-glaze stoneware recently presented to the Metropolitan Museum of New York by Mr. and Mrs. Carleton Macy will be a delight to anyone interested in ceramics, as will also the illustrated article about such wares in the Museum's *Bulletin* for March.

Home Safety. The questionnaire used by the Evanston Township High School in a survey of accident hazards in the home is reproduced in the April *News Letter* of the Home Safety Committee, National Safety Council, 20 North Wacker Drive, Chicago, in the hope of stimulating other schools to make similar use of such a check list of common causes of home accidents.

Nursery Education. The National Association for Nursery Education offers a special packet of five pamphlets for $1: "Minimum Essentials for Nursery School Education," "Proceedings of 1927 Conference, New York," "Proceedings of 1929 Conference, Chicago," "Proceedings of 1931 Conference, Philadel-

phia," "Proceedings of 1933 Conference, Toronto." Apply to Miss Abigail A. Eliot, secretary-treasurer, 147 Ruggles Street, Boston, Massachusetts, enclosing check or money order.

"Art for Today's Child." The Association for Childhood Education has issued an attractive 32-page bulletin with this title, which presents the "opinions and practices of several instructors who are working creatively in art with young children in the hope that their experiences and points of view may lead others to a better understanding and appreciation of what art can do for today's child."

"Newsies." A study of the age, wages, hours of work, and conditions of employment of children engaged in newspaper and magazine selling and delivering recently made by the U. S. Children's Bureau in cooperation with the N.R.A. shows that while very young children are less frequently employed than a few years ago, the rates of pay are in most cases extremely low, especially for the younger boys and girls, and in many cases the working hours and other conditions are far below those considered socially desirable. The report is issued as U. S. Department of Labor, Children's Bureau Publication No. 227, and copies may be purchased from the Superintendent of Documents, Washington, D. C., for 10 cents each.

"Attractive Clothes for Active Children." Material gathered for a clothing exhibit held under the auspices of the Child Development Institute at Teachers College, Columbia University, has been worked over into a mimeographed bulletin of sensible suggestions and practical directions. It is sold by the Institute for 10 cents a copy.

American Association for Adult Education. "The Adjustment Service, a Report of an Experiment in Adult Guidance" describes a project carried out by the New York Emergency Unemployment Relief Committee with the help of funds granted by the Carnegie Corporation to the American Association for Adult Education. The experience of various occupational and personnel agencies was drawn on in developing methods of counseling; and the service is felt to have answered a genuine need, aided many clients in a comparatively short time, and added to our knowledge of diagnosis, technics, occupational trends, and information. Copies of the report, a 64-page pamphlet by Jerome H. Bentley, may be obtained free from the American Association for Adult Education, 60 East 42nd Street, New York City.

An "Annotated Bibliography on Adult Education" compiled by William Martin Proctor, printed and distributed with the cooperation of the American Association for Adult Education, is a pamphlet of 124 pages with titles classified under such captions as history, administration, American and foreign agencies, and with an alphabetical index of the authors cited.

Self-Analysis and Jobs. The outline for "A Program of Self-Analysis and Job Guidance for Adults" has been issued by the Pennsylvania Department of Public Instruction, Harrisburg, for the special use of vocational, guidance, and emergency education classes, transient camps and shelters, and C.C.C. camps.

Homemaking Education Abroad. Madam Gérardy, adjunct inspectress of home economics in Hainaut, Belgium, describes in a recent bulletin the program for moral and social training that is offered in the adult homemaking schools of that province. The objectives and subject matter are not unlike those commonly found in our courses in parent education, family relationships, or homemaking, though the formal set-up is quite different.

The December, January, and February issues of *L'Organisation Ménagère* devoted considerable space to papers and discussions delivered in Paris last September at the second annual "Stage de Perfectionnement Ménager," a conference at which teachers and supervisors of home economics from all over France listened to specialists in various fields and discussed problems and progress in home economics education with well-known educational leaders. The conference was arranged by Madame Belime-Laugier and Madame Pouillot, inspectress of home economics with the Board of

Education, Department of the Seine. Like its predecessor of 1933, it is said to have been very stimulating to the teachers and supervisors and also to have made the educational world in general more aware of the potential values of home economics.

Consumer Cooperatives. The Bureau of Labor Statistics of the U. S. Department of Labor has recently published bulletins on three phases of this subject, each including model by-laws for the type of organization described: No. 598, "Organization and Management of Consumers' Cooperative Associations and Clubs"; No. 606, "Organization and Management of Cooperative Gasoline and Oil Associations"; and No. 608, "Organization and Management of Cooperative Housing Associations."

Wisconsin Farm Families and Young People. The Agricultural Experiment Station at the University of Wisconsin, Madison, has recently published as Research Bulletin 126 "How Farm Families Meet the Emergency" by E. L. Kirkpatrick, Rosalind Tough, and May L. Cowles. Special circulars recently added to the "Rural Youth and Rural Life Series" of the Extension Service, College of Agriculture, at Madison are "What Farm Young People Like and Want" and "What Rural Young People Do and Want to Do." The bulletin is sold for 10 cents a copy, the circulars for 5 cents.

Literature of Rural Life. The "Guide to the Literature of Rural Life," first issued in 1929 by the American Country Life Association, 105 East 22nd Street, New York City, has now been thoroughly revised for the second time and issued in bulletin form as a classified, briefly annotated bibliography of 15 pages.

Rural School Finances. "Financial Situation in Rural Schools and Small Independent School Districts, 1934–35" is the title of the report of a study by Howard A. Dawson, special consultant in school finance, recently published by the U. S. Department of the Interior, Office of Education, Circular 138.

Farm Population and Rural Life. A 15-page mimeographed list of federal, state, and miscellaneous publications relating to farm population and rural life was published in March by the Bureau of Agricultural Economics of the U. S. Department of Agriculture.

"Planning and Civic Comment." Beginning with 1935 the American Civic Association, the National Conference on City Planning, and the National Conference on State Parks have combined in issuing the quarterly *Planning and Civic Comment* as their joint official magazine. It replaces the former separate organs, *Civic Comment*, *City Planning*, and *State Recreation*. Its aim is "to create a better physical environment which will conserve and develop the health, happiness and culture of the American people." The subscription price is $3 a year, and the editorial office is at 901 Union Trust Building, Washington, D. C.

U. S. Office of Education. Recent reference bulletins from the U. S. Department of the Interior, Office of Education, are: Bulletin, 1934, No. 16 "Accredited Higher Institutions, 1934," price 15 cents; Bulletin, 1935, No. 1 "Educational Directory, 1935": Part II "City School Officers," Part III "Colleges and Universities," Part IV "Educational Associations and Directories," price 5 cents each part.

School Buildings. "The Nation's School Building Needs" is the general title of the January *Research Bulletin* of the N.E.A. It traces recent trends in school building construction, shows what construction has been done since 1918, and suggests the rôle that the federal government should play in the school building program.

Making Slip Covers. Useful practical suggestions for homemakers as well as for the institutional housekeeper for whom it is primarily intended are found in "How to Make Slipcovers," a recent addition to the "Little Gold Business Books" published by J. O. Dahl, Haviland Road, Stamford, Connecticut, and sold for 50 cents a copy.

NEWS NOTES

GENERAL

Education by Radio. The sixth annual Institute for Education by Radio combined with the fifth annual assembly of the National Advisory Council on Radio in Education was held at Ohio State University May 6 to 8. Representatives were present from college and university stations, commercial broadcasting interests, the Federal Communications Commission, other agencies of the federal government, parent-teacher organizations, and other educational associations. Mrs. Faith Lanman Gorrell represented the A.H.E.A. Technics of presentation and ways of organizing listeners in this and other countries and demonstrations and clinics of recorded broadcasts were held.

"More for Your Money." This is the title of a series of consumer radio talks given on Tuesday evenings during May and June over a nation-wide hook-up of the Columbia network. The speakers include nationally-known authorities in business, banking, science, journalism. On June 18 Mrs. Emily Newell Blair, new chairman of the Consumers' Advisory Board, N.R.A., will talk on "The Consumer's Stake in the New N.R.A."

Fifth International Congress of Agricultural Science. This congress, scheduled for Buenos Aires in September, 1935, has been postponed until September 1936.

Preparation for Marriage and Family Life. The second conference on instruction as preparation for marriage and family life will be held at the University of North Carolina July 8 to 12. The program may be had by addressing Dr. Ernest R. Groves, Chapel Hill, North Carolina.

American Public Health Association. The 64th annual meeting is to be held in Milwaukee, October 7 to 10, with the Hotel Schroeder as headquarters. A session on birth control is being favorably considered by the program committee. The fourth Health Education Institute is being arranged for October 4, 5, and 6, with "Health Education Applicable to Rural Areas" as the subject. E. G. Routzahn will be in charge of health education and publicity headquarters.

American Dietetic Association. The Association will hold its eighteenth annual meeting at the Hotel Cleveland, Cleveland, Ohio, from October 28 to 31. Marie Hines is chairman of local arrangements.

NEBRASKA

Nebraska Home Economics Association. The annual meeting held at the Nebraska State Teachers College at Kearney on March 29 and 30 was the first to be held in one of the smaller centers of the state. Attendance was excellent. Maude Williamson of the Colorado Agricultural College, the guest speaker, discussed "Integration of Education for Home and Family Life" and "Our Blind Spots."

Nebraska State Teachers College, Kearney. An alternate plan is followed in the home economics courses offered at the summer session so that students unable to attend during the year may work consistently towards a home economics major.

University of Nebraska. The convocations on the Agricultural College campus sponsored by student organizations have included this year many travel talks and illustrated lectures.

The Consumers' Institute held in Lincoln in March was so successful that the program was repeated for the large meeting of farm people at the College of Agriculture in April.

To secure a better understanding of the problems of low-income families, the home economics seniors have been accompanying welfare workers in Lincoln on their visits to homes.

Extension Service. The recognition and installation service for officers of home demonstration project clubs, an impressive candle-lighting service developed recently by the Nebraska Home Economics Extension Service

under the leadership of Mary Ellen Brown, has been used by many clubs elsewhere.

NEW JERSEY

New Jersey Home Economics Association. The May meeting, which came too late to be reported in full in this issue, was held at Rutgers University.

North Jersey Home Economics Association. Over 90 members attended the mid-winter dinner meeting at Schraffts in Newark on February 27. Edna J. Benson, president, introduced the guest speaker, Dr. Freda Winning of New York University, who spoke on "Occupational Trends for Women." A social hour followed. Helen Raven was program chairman.

NEW YORK

New York Home Economics Association. The annual meeting was held in Martha Van Rensselaer Hall, Cornell, on May 3 and 4. The Saturday program, at which Dr. Helen Judy Bond of Teachers College, Columbia University, presided, included a symposium on "Educating the Consumer" led by Marion S. Van Liew. A dinner, a tea, trips through the university buildings, and special exhibits were features of the program.

The student club program was in charge of Olga Brucher of Cornell and Katherine McIntyre, state chairman.

Western District. The recent luncheon meeting at Teachers College, Buffalo, was followed by a discussion of "Design in Relation to Clothing."

A benefit movie was held recently to increase the scholarship fund and to meet the expenses of the state convention.

Cornell University. The New York State Federation of Women's Clubs held a conference on "Today's Challenge to the Home" in Martha Van Rensselaer Hall on April 4 and 5. Mrs. Bert W. Hendrickson, the chairman, is a graduate of the College of Home Economics at Cornell.

Pratt Institute. The Home Economics Club entertained the home economics clubs of New York University and Teachers, Hunter, and Brooklyn Colleges at a tea on February 8 as a preliminary to the organization of a city-wide college home economics club. Mrs. Gertrude Hoeg, chairman of student high school clubs, was guest of honor.

Penn Yan. A recent issue of the Penn Yan High School paper was dedicated to the homemaking department. The cover carried a picture of the new fireplace in the department.

Syracuse. At the Vocational High School boys are studying cooking and girls have enrolled for woodworking so that they may study woods, paints, and varnishes.

Syracuse University. Dean MacLeod of the College of Home Economics reports that 97 per cent of the 33 freshmen in 1928 were preparing to earn a livelihood, whereas this year 50 per cent are interested primarily in education that will be useful when they marry.

NORTH CAROLINA

North Carolina Home Economics Association. About 150 home economists attended the annual meeting at Winston-Salem on March 29 and 30 under the presidency of Mrs. Maude McInnis. Out-of-state speakers included Alice L. Edwards of the A.H.E.A.; Dr. Marietta Eichelberger of the Evaporated Milk Association; and A. H. Ward, rural rehabilitation adviser of Atlanta, Georgia.

Officers for 1935–36 are: president, Cora E. Gray, Catawba College, Salisbury; vice-president, Mary York; secretary, Mary Huffines, Lumberton; and treasurer, Viva M. Playfoot.

NORTH DAKOTA

North Dakota State College. Under the supervision of Dean Alba Bales the 8 girls living in the home management house conducted an experiment in food budgets and diets for families on relief. For one week they planned, prepared, and served as satisfying, adequate meals as possible from the types of food suggested and from the quantity that could be bought with the state relief office's minimum adequate allowance for 8 people. The girls did not eat between meals and tried, psychologically, to place themselves in the position of a family on relief. They reported that careful planning was necessary; that while they did not feel undernourished, the meals were somewhat monotonous, and all craved more fresh vegetables and butter.

Phi Upsilon Omicron is cooperating with Tryota, the home economics club, in sponsoring joint programs about outstanding women in the home economics profession.

Extension Service. Grace DeLong, state home demonstration leader, reports that last year there were 556 homemakers' clubs in the state in which 9,555 women were enrolled—an increase of 3.9 per cent in membership over the 1933 record—and that 20,496 individuals received assistance. Much of the work was done through 1,451 leaders trained by the state subject matter specialists.

OHIO

Ohio Home Economics Association. "Keeping Up to Date in Home Economics" was the theme of the annual meeting held at the Ohio State University in Columbus on April 6. Mrs. Faith Lanman Gorrell, presided; and speakers and their topics included: Ivol Spafford, "Present-Day Trends in Teaching"; Mrs. Mary S. Rose, "Newer Concepts of Nutrition in Relation to Health"; Dr. Pauline Berry Mack, "Recent Research in Textiles"; Mrs. Jane Hinkley Blake, "Present Problems in Teaching Family and Other Social Relationships"; Mrs. Florence La Ganke Harris, "The House of Today Goes Modern." Dr. Velma Phillips presided at the business session.

The committee on vocational guidance, headed by Mary Parker of Western Reserve University, is studying factors which have influenced students to elect home economics as a major in college.

Student Clubs. Mrs. Ethel Sapp Tudor of Baldwin-Wallace College is the new adviser for student clubs in the state. The regional conferences held in March at Bowling Green State College, Baldwin-Wallace College, Ohio University, and Wittenburg College attracted over 1000 students.

Baldwin-Wallace College. The home economics department recently moved into new quarters in an old 14-room house on the campus which has been completely remodeled and redecorated and now includes laboratories, office, and a practice apartment.

J. Beyers Hayes, a Cleveland architect, spoke to the advanced home economics students on the model home, of which he was the architect, that the General Electric Company built at Nela Park.

Cleveland. *Cleveland Home Economics Association.* The Home Economics Women in Business sponsored the lecture which Nina Strandberg of Finland recently gave before the Association.

Central High School. The chef's class has 21 colored boys enrolled.

OKLAHOMA

A. & M. College. A two-day conference for consumers will be held during the week of June 10 in which representatives from various state organizations will participate.

Murray Hall, the new dormitory for women, will be ready for use at the summer session.

Daisy Purdy attended the School of Home Economics conducted in Detroit by the Federation of American Societies.

Oklahoma College for Women. The annual Home-Coming Day for graduates was held on March 9. The morning was devoted to a discussion of teaching problems, home projects, group activity, and organization of classroom work. The Home Economics Club and Omicron Phi were hostesses at luncheon.

A program on consumer education was presented to the Women's Club at Marlow on April 4. Anna K. Banks talked on "Buying, a Woman's Problem" and two seniors, Armenta Wallace and Helen Modrall, demonstrated how to buy hosiery, bath towels, and sheets and showed simple tests to identify fiber content in fabrics and weighting in silks.

University of Oklahoma. Teachers in training now have the opportunity to observe and do practice teaching in the vocational homemaking department at the Norman High School, under Ann Buntin's direction.

Omicron Nu, Oikonomia, and Hestia, the three home economics organizations, sponsored a series of cooperative meetings this year. At the last, Kate S. North, state supervisor, discussed vocations in home economics, with emphasis on teaching.

Betty Hume, a junior, has been elected state president of Oklahoma student clubs.

Extension Service. Parent education is a major project in the county home demonstration programs in 34 Oklahoma counties this

year, 25 of which are in their second, third, or fourth year of work on the project.

Vocational Education. A state-wide homemaking and parent education conference will be held at Norman in June.

OREGON

Oregon State College. Beryl Dixon is teaching household management courses, economic problems of the family, and problems of consumer buying during the spring term, succeeding Mrs. Mary Koll Heiner, guest teacher during the winter term.

Mrs. Jessamine C. Williams is offering a new one-credit course in meal planning for managers of houses for student groups.

A buffet colonial dinner for students, faculty members, and alumnæ was given by the Home Economics Club on March 5 to help earn the club's pledge to the international fellowship. Four students in costume danced the minuet.

A 24-hour nursery school for children between the ages of two and four will be conducted this summer for the first time. Adult classes, planned especially for parents whose children are enrolled, will be conducted by Dr. William E. Blatz of Toronto.

In April, 28 students made the annual field trip to hospitals, stores, laundries, and similar institutions in Portland under the direction of Melissa Hunter and Agnes Kolshorn.

Home Economics Clubs. The home economics clubs of the Milton and Freewater High Schools recently sponsored an all-day conference of representatives from 12 schools within a 100-mile radius. Speakers were Dean Ava B. Milam of Oregon State College; Bertha Kohlhagen, state supervisor of home economics; and the county health nurse.

Bend. The only play school in the state planned and directed by high school students was that held in Bend last fall under Blanch Eickworth's guidance.

Portland. The entire teaching staff of the Portland schools assembled on May 14 to hear Flora Thurston discuss "The Emotional Load Which Children Bring to School."

Jeannette Cramer, formerly home economics editor of the *Oregonian*, is home economist for the Meier & Frank Company, Portland's largest department store.

Emergency Nursery Schools. A training school for 45 emergency nursery school teachers during the summer session is contemplated by Mrs. Sarah V. Case, state supervisor. Some of the 16 nursery schools of Oregon will be in session throughout the summer. In March 495 children were enrolled in these schools.

Extension Service. All-day conferences on family living have been conducted in 23 counties this spring by the home economics agents in cooperation with the county agricultural agents.

PENNSYLVANIA

Pennsylvania Home Economics Association. "Home Economics Education for the New Citizenship" was the theme of the annual meeting in Harrisburg on May 3 and 4. On Friday afternoon "The Need for Education for Social-Family Life, Marriage, and Parenthood" was discussed by Dr. Lemo Dennis Rockwood of the A.H.E.A. and Mrs. Stewart Mudd of the Marriage Consultation Bureau in Philadelphia. At the Friday dinner meeting "The Dilemma of Youth" was discussed by Dr. Mark A. May of the Institute of Human Relations at Yale University. On Saturday morning the topics "A Social-Family Relations Program for Boys and Girls," "Art in Everyday Life," and "Training Girls for Wage-Earning Occupations" were discussed by Dr. Frank Reiter, William H. Bristow, C. Valentine Kirby, W. P. Loomis, and Mrs. Anna G. Green.

Drexel Institute. During February, Effie I. Raitt, president of the A.H.E.A., was a guest of honor at a dinner and reception given by the home economics faculty; and Carlotta C. Greer, a Drexel graduate now head of the home economics department of the John Hay High School, Cleveland, addressed the home economics students.

Indiana State Teachers College. On April 12 the home economics department, under the direction of Isabel Collins, sponsored an instructive, attractive exhibit featuring consumer education; child development; family relationships; and nutrition, with special attention to a normal family's food requirements.

Hotel Service Training. A hotel service training program in which the home economics division of the State Department of Education

participated has recently been organized in the Pocono Mountain region. Home economics teachers give a general course preceding the training for specific jobs in hotels.

Pennsylvania State Dietetic Association. The third annual convention was held May 8 to 10 at the Bellevue Stratford Hotel, Philadelphia. The program covered administration, diet therapy, and professional and community education; there was a meeting with the Hospital Association of Pennsylvania when subjects of particular interest to hospital administrators and dietitians were discussed.

PUERTO RICO

Puerto Rico Home Economics Association. Officers for this year are: president, Mrs. Petra O'Neill, Manatí High School; vice-presidents, María Teresa Orcasitas and Josefa Lugo; secretary, Carmen Rodríguez Sánchez, Baldorioty School, San Juan; and treasurer, María Adela Valentín.

TENNESSEE

Tennessee Home Economics Association. At the annual meeting in April Dr. Hazel Kyrk of the University of Chicago and Dr. George D. Strayer of George Peabody College for Teachers spoke. Field trips were scheduled for the afternoon. The college section had a breakfast meeting.

Tennessee E.R.A. Sewing classes for relief clients have been organized and teachers are supplied by the Adult Education Fund. Sample garments have been made by classes at George Peabody College for Teachers. Visiting housekeeper projects have been established in several counties with a home economist as supervisor.

Madison Rural Sanitarium and Hospital. The home economics department is conducting a series of college projects in nutritional management, budgeting, quantity cookery, and nutrition education, which include both class and field work.

Maryville College. The home economics students usually serve at the monthly Faculty-Study Club banquets, and in May this was done by those enrolled in the elective course in home economics for men.

Recently the girls went to Norris to study the T.V.A. homes and to Knoxville to inspect a cotton mill.

State Teachers College, Johnson City. At a recent assembly the Home Economics Club showed motion pictures of different activities of the home economics department. It is hoped that these will be included in a series to be loaned to the high schools of East Tennessee.

Electricity and its use in the home was the subject of a series of programs held in March for the home economics classes as a part of the state T.V.A. program.

Public High Schools. *Dickson.* The home economics class presented an amusing farce in March, the proceeds from which were used for furniture for the Home Economics Club's apartment.

McKenzie. The home economics class was in charge of the March meeting of the P.T.A.

Winchester. Three one-act plays were presented in March to secure funds for improvements in the department.

Stewart. The newly organized Home Economics Club has 21 members.

TEXAS

State Department of Vocational Education. Boys and adult students of homemaking participated in the annual Homemaking Education Rally conducted by the vocational home economics staff in April. A one-act play entitled "Martha Washington Visits the Homemaking Rally" was given by the Home Economics Club.

About 150 teachers replied to a questionnaire on what Texas home economics teachers are doing to train consumers in buying. In connection with the same study a suggestive questionnaire was sent to parents, about 2,500 of whom replied.

North Texas Agricultural College. An occupational conference for girls was held at the College on March 18. At each of the 11 round tables a business or professional woman discussed the requirements, opportunities, and disadvantages of her particular job.

Extension Service. If all the food canned by rural women and girls last year under the guidance of the state home demonstration agents were packed in a train of freight cars, the train would be 400 cars long.

Lola Blair, nutritionist, and Sadie Hatfield, district home demonstration agent, are on leave of absence to assist in training home demonstration agents in Puerto Rico.

VIRGINIA

Virginia Home Economics Association. At the annual meeting in Richmond on April 12 and 13 the subjects "Consumer Responsibilities," "Keeping up in Nutrition," "Human Values of the Family," and "Woman's Opportunity" were discussed by Mrs. Emily Newell Blair of the Consumers' Advisory Board; Dr. E. R. Groves of the University of North Carolina; J. Ernestine Becker of Johns Hopkins University; Mrs. Geline Bowman, president of the National Federation of Business and Professional Women's Clubs; and Maude E. Wallace, vice-president of the A.H.E.A. The "On-To-Chicago" committee, of which Mattie Puckett of Spotsylvania is chairman, gave an enthusiastic report. Those interested in going to the A.H.E.A. meeting are asked to communicate with her. Next year's meeting will be held on March 27 and 28.

Farmville State Teachers College. The home economics students are studying homemaking in other lands in connection with their homemaking courses.

Fredericksburg State Teachers College. Mrs. Eula Porter Robbins, recently with the V.E.R.A. but now teaching institutional economics at the college, has reorganized the tearoom.

Radford State Teachers College. A summary course for seniors called "Allied Home Economics Fields" coordinates the possibilities for applying principles and activities taught in all the home economics courses.

Nellie Mae Touchstone is the new supervisor of teacher training. Ana Snider has joined the staff to teach clothing and design.

The home economics department has this year added a new foods laboratory, and a home management house and the clothing laboratory have been remodeled.

Virginia Emergency Relief Administration. Ella Agnew, in charge of women's work, states that 105 home economists are working on rural rehabilitation projects, under the general charge of Byrd Johnson. As chairman of the Virginia Regulative Committee, Miss Agnew has been active in promoting legislation affecting home economists.

East Radford. Membership in the East Radford Home Economics Club is open only to home economics majors in the upper quarter of their class. The club is studying the standardization of local market products.

WASHINGTON

Washington Home Economics Association. *Western Section.* Effie Raitt, president of the A.H.E.A., and Claribel Nye, extension specialist in Oregon, spoke at the section's spring meeting at the Monte Cristo Hotel in Everett on March 29. The high school student clubs of western Washington met at the same time.

Inland Empire Meeting. At the annual meeting in April in Spokane, Effie Raitt gave an address on "Broadening Horizons and Deepening Foundations."

State College of Washington. Dr. E. Niege Todhunter plans to visit New Zealand this summer, stopping at several of the South Sea Islands on the way out and returning via California.

The Ellen H. Richards Club recently sponsored a sale to help talented women of eastern Washington find a market for their products.

Everett High School. On March 21 as a part of the state school broadcast over station KJR the home relations classes gave a playlet explaining the purpose and content of the home relations course. Hortense Miller, instructor of home relations, introduced the playlet, and four girls took part.

WISCONSIN

Wisconsin Home Economics Association. The Association has assembled a list of well-trained home economists capable of discussing homemaking subjects and willing to speak to clubs free of charge, except for necessary traveling expenses.

Milwaukee-Downer College. The home economics department is assisting with the nutritional program of the new emergency nursery school for colored children in Milwaukee. Senior students in child nutrition help with menus and other feeding problems.

The Home Economics Club recently sponsored a style show at which money was raised to buy textiles for use in the textile class.

Mount Mary College. The Home Economics Club sent representatives to the state club rally on April 13 and is planning to send a delegate to the A.H.E.A. convention in Chicago.

Club girls have made field trips recently to several commercial concerns and attended the cooking school sponsored by the *Milwaukee Sentinel.*

The student demonstrators have extended invitations for numerous demonstrations to the student club members and to the Home Economics Auxiliary for the spring season.

Stout Institute. The Chippewa Valley Home Economics Club met on April 27 at the Institute. At the same time, the high school home economics clubs of the section enjoyed an all-day meeting and luncheon there. Ethelwyn Robinson, state president of home economics clubs, was the guest of honor and principal speaker.

Hazel Van Ness discussed "Consumer Education" before the Woman's Club of Eau Claire on April 23.

University of Wisconsin. The interior decoration students directed by Mrs. Elizabeth Neal furnished the wooden prefabricated house built by the Forest Products Laboratory and displayed at the Home Show in Madison from March 27 to 31.

While Dr. M. Török of the Hungarian Royal Ministry of Agriculture was at the College of Agriculture to make a study for the Budapest government of the use of paprika in processed cheese, he gave talks and demonstrations before the home economics experimental cookery group.

Milwaukee Teachers' Home Economics Association. At the March meeting Susan West of Milwaukee-Downer College talked on "The New Science of Nutrition," and in April the various clubs and groups interested in home economics had a get-together dinner with Dr. Hazel Kyrk of the University of Chicago as the speaker.

Vocational Home Economics. A summer district conference for homemaking teachers will be held from July 15 to 19 in Madison.

A conference of local supervisors in the city vocational homemaking departments was held in Milwaukee at the time of the visit of Florence Fallgatter of the U. S. Office of Education; at the morning session a program of work for local supervision was discussed, and at the afternoon meeting the promotion of home employment training was considered.

WYOMING

University of Wyoming. *Extension Service.* During 1935 the 5,000 or more rural Wyoming women enrolled in home demonstration work are devoting part of each meeting to memorizing songs for part singing, a very popular project.

Farm family planning conferences have been conducted in Uinta and Goshen Counties by the home management and the farm management specialists. Husbands and wives bring their accounts for the past year to these conferences and from them decide upon their budget for the coming one. The discussions point to the need for this phase of home management work.

State Department of Education. Three district conferences of home economics teachers held in conjunction with district education association meetings emphasized consumer education.

Each vocational home economics teacher is emphasizing consumer education in at least one unit of her course this year and will report her results at the summer teachers' conference as a preliminary to a detailed study of the problems involved.

Student Clubs. The interest of student high school clubs in the state club bulletin is maintained by club reports and by the clubs in rotation designing and preparing its cover.

Casper. Mary O'Leary, in charge of the high school cafeteria, teaches a semester's course in food buying which has proved very popular.

OUR CONTRIBUTORS

Charles E. Pynchon has been manager of the division of subsistence homesteads in the U. S. Department of the Interior and in charge of operations of the Federal Subsistence Homesteads Corporation. An engineer by training, he has for years been an executive in business corporations.

Dr. Cecile T. LaFollette is associate in New College of Teachers College, Columbia University, and author of *A Study of the Problems of 652 Gainfully Employed Married Women Homemakers*, noted in the February JOURNAL.

Eduard C. Lindeman, widely-known author and teacher, has been connected with the New York School of Social Work since 1924. He has also been an active advocate of adult education and has done much to develop the technic of group discussion.

Dr. Thomas W. Gosling brought to his present position as national director of the American Junior Red Cross a varied background of experience as a teacher in secondary schools and colleges and as a city superintendent of schools in Wisconsin and Ohio.

Florence E. Winchell is assistant administrator of child development and parent education for the Rochester (N. Y.) Board of Education. **Esther M. Morris** and **Gladys Love** are both home economics supervising teachers at Michigan State College. **Dorothy Johnson** teaches home economics in the high school at Boonville, Missouri.

Ruth Seal Halvorson has taught home economics at the Terrace Park (Ohio) Union High School for the past seven years, following four years of teaching experience in grade and junior high schools in West Virginia and Cincinnati. She holds both the bachelor's and master's degrees from the University of Cincinnati.

Ruth Axtell Chalmers is a home economist for the Women's Division of the F.E.R.A. Her previous experience included dietetics work in a New England hospital, in the testing bureau of a popular magazine, and in a large chain grocery company and nutrition work for the Vermont E.R.A.

Myrtle Weldon, state leader of home demonstration work in Kentucky since 1924, served as chairman of the committee to select the new home economics extension emblem which she describes in this issue.

Wihlma Elizabeth Waters was a graduate student in home economics at Mills College when the measurements of Chinese children reported in this issue were made. This year she is teaching home economics at St. Helen's Hall Junior College, Portland, Oregon. **Dr. Carrie Castle Dozier,** chairman of the department of home economics at Mills College since 1927, directed the study here reported. She holds three degrees from the University of California and has taught in colleges and universities in three states.

Henrietta M. Thompson, head of the clothing and textiles department at the University of Alabama, was a contributor to the symposium "Problems of Clothing Courses" in the January 1933 issue. **Mrs. Ada Camp Dowling** collected the material on which their joint article is based while she was working for a master's degree under Miss Thompson's direction.

William G. Carr has been on the staff of the National Education Association since 1929 and director of its research division since 1931. His earlier experience included public school and university teaching in California and Oregon and acting as research director for the California Teachers Association.

Ruth Jordan is research assistant in the department of home economics at the agricultural experiment station of Purdue University, where she received both her bachelor's and master's degrees.